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**Foreign-Source Procurement Funded through Federal Programs by States and Organizations. ID-79-1; B-162222; B-156489. November 30, 1978. 3 pp. + 4 appendices (74 pp.).**

**Report to Rep. Charles J. Carney, Chairman, House of Representatives: Congressional Steel Caucus; by Elmer B. Staats, Comptroller General.**

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**Twenty-seven States and the District of Columbia restrict the use of foreign materials in public works projects either through legislation or procurement regulations. Recent legislation enacted at State and Federal levels expanded buy-national preferences to U.S. firms competing for federally financed procurement, including making buy-national preferences mandatory for federally funded transportation grant programs. Findings/Conclusions: Buy-national restrictions have been contested, and State courts have come to varying conclusions as to their constitutionality and as to whether they violated State competitive bidding statutes. Foreign source procurements by States and organizations for federally assisted programs, many involving construction projects, were identified. These represented a relatively small percentage of total project costs. This can be attributed to Federal and State buy-national preferences and to the fact that many significant cost elements of construction projects are not subject to foreign competition. The urban mass transportation program involves a greater incidence of foreign-source procurement. Five of eight grantee awards for railcars from January 1, 1976, to November 15, 1978,**

went to foreign firms. On some contracts, no U.S. companies competed because they did not have the capacity to produce the required equipment. Antrak has spent 4.2% of the \$1.4 billion expended for materials on foreign-source materials, mostly on the basis of sole-source procurement or unavailability in the United States. (HTW)

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REPORT BY THE

# Comptroller General

OF THE UNITED STATES

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## Foreign-Source Procurement Funded Through Federal Programs By States And Organizations

This report addresses foreign-source procurement funded through Federal programs by States and selected organizations. Legislation enacted this year at both the State and Federal levels considerably expands buy-national preferences for U.S. firms competing for such federally financed procurement.

Federal and State buy-national preferences are identified and legal issues relating to State and local buy-national preferences are defined.

Information on foreign-source procurement by States and organizations is provided for federally assisted highway, urban mass transportation, railroad, airport, municipal wastewater treatment, local public works, and rural electrification programs.





COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20546

B-162222  
B-156489

The Honorable Charles J. Carney, Chairman  
Congressional Steel Caucus  
House of Representatives

Dear Mr. Chairman:

In your letter of February 9, 1978, to the Comptroller General you requested that GAO respond to a number of issues related to foreign procurement with Federal funds. This report addresses foreign-source procurement funded through Federal programs by States and selected organizations and will conclude our series of responses to your request and that of Congressman Morgan F. Murphy.

Appendix I identifies Federal and State buy-national preferences and defines the legal issues relating to State and local buy-national preferences. Legislation enacted this year at both the State and Federal levels considerably expands buy-national preferences to U.S. firms competing for such federally financed procurement.

Over the years State and local buy-national restrictions have been contested, and State courts have come to varying conclusions as to their constitutionality. Other decisions concerned whether administrative and local buy-national restrictions excluding bids of foreign materials violated State competitive bidding statutes.

The recently enacted Surface Transportation Assistance Act (Public Law 95-599, Nov. 6, 1978) and Amtrak Improvement Act of 1978 (Public Law 95-421, Oct. 5, 1978) make buy-national preferences mandatory for federally funded transportation grant programs, both in the States that now apply buy-national preferences and those that do not. Prior legislation requires buy-national preferences for federally funded rural electrification, local public works, and wastewater treatment programs.

ID-79-1

Appendix II summarizes our findings on foreign-source procurement by States and organizations for federally assisted highway, urban mass transportation, railroad, airport, municipal wastewater treatment, local public works, and rural electrification programs. We obtained our information from Federal and State officials and from trade association representatives. For selected projects in several States our representatives also talked with officials representing Government contractors, industry, and suppliers. Information was generally limited and difficult to obtain concerning foreign-source components of materials furnished by suppliers that stock both domestic and foreign-source items.

Many programs involved construction projects, and the foreign-source procurements identified represented a relatively small percent of total project costs. Existing Federal and State buy-national preferences contributed to this result. For practical reasons, significant cost elements of construction projects are not subject to foreign competition. U.S. firms do the construction work, and their labor and other non-material costs account for a substantial portion of total project costs. Some basic construction materials, such as sand, rock, gravel, and concrete are usually purchased near the construction site because of their bulk and weight. Prime contractors may be expected to prefer to deal with U.S. subcontractors, suppliers, and equipment manufacturers because it facilitates management control and performance. Product and equipment specifications generally favor domestic suppliers.

The urban mass transportation program involves greater incidence of foreign-source procurement. Of the eight grantee awards for railcars totaling \$481.1 million, during January 1, 1976, to November 15, 1978, five (totaling \$240.1 million) went to foreign firms. No U.S. companies competed for contracts involving \$125.1 million of these awards because, among other reasons, they lacked available production capacity or chose not to produce the equipment required. However, the railcars contained a significant degree of U.S.-origin materials. In several States, we also identified foreign purchases of specially designed buses and electric trolley buses that, at that time, were not available from domestic manufacturers.

Amtrak has spent \$59.9 million for foreign-source materials since its creation in May 1971 through February 1978, or 4.2 percent of the \$1.4 billion expended for materials. These purchases were made mostly on the basis of sole-source procurement or unavailability in the United States. Amtrak continues to find it necessary to rely on more advanced foreign equipment, some of which it leases for testing and modification purposes. It also encourages development of alternative U.S. sources of supplies and equipment in instances where such items must be procured from foreign sources.

Appendix III contains the current information on Federal assistance to State and local governments and other organizations for the programs examined. Appendix IV lists reports we have sent to you during this review.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "James A. Blum". The signature is fluid and cursive, with a large initial "J" and a distinct "A" and "B".

Comptroller General  
of the United States

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## ABBREVIATIONS

ADAP	Airport Development Aid Program
EDA	Economic Development Administration
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
GAO	General Accounting Office
GATT	General Agreement on Tariffs and Trade
REA	Rural Electrification Administration
UMTA	Urban Mass Transportation Administration



FEDERAL AND STATE BUY-NATIONAL PROVISIONS

Twenty-seven States and the District of Columbia restrict the use of foreign materials in public works projects, either through buy-national legislation or administrative procurement provisions. Our information on buy-national provisions included in State legislation and in transportation regulations was largely provided by the State transportation departments and by steel industry representatives. We have not included State legislation which gives preference to products produced within the State but makes no distinction between products obtained from other States and foreign sources.

Six of the eleven States that have buy-national legislation--Indiana, Maryland, Minnesota, Ohio, Pennsylvania, and West Virginia--have enacted these laws within the past year.

This buy-national legislation normally restricts foreign procurement in all public works projects; State Highway Division regulations pertain to materials used only in highway and/or bridge construction. Legislation and regulations also may limit foreign procurement only for specific types of materials, such as

- all construction materials;
- all steel products;
- structural steel fabrication; or
- aluminum or glass products.

Many State laws and regulations include provisions for waiving the domestic procurement requirements for such reasons as unreasonable price differential, nonavailability, inferior quality, and procurement of the domestic product is not in the public interest. Incidental materials and minor component parts may also be exempt from buy-national requirements.

States that have enacted buy-national legislation or have transportation department regulations are shown in table 1. The information was obtained during the second quarter of 1978. Details of these regulations are discussed on pages 20-25.

## STATE "BUY NATIONAL" PROVISIONS AND STATE TRANSPORTATION DEPARTMENT REGULATIONS

State	Buy-national legislation	Department of highway regulation (no State legislation) (note a)	Domestic preference (note b)			Types of projects covered (note b)		
			Buy-national materials	All steel products	structural steel fabrication	All public works	Highway projects	Bridges projects
Alabama	Yes	Yes	X			X		
California	Found unconstitutional 1969	No						
Colorado	No	Temporarily suspended 1976						
Connecticut	No	Yes			X	X		X
District of Columbia	No	Yes	X			X		
Georgia	No	Deleted 1977						
Hawaii	Discretionary	No	X					
Idaho	No	Yes	X			X		X
Illinois	No	Yes						
Indiana	Yes	No		X		X		X
Iowa	No	Yes			X			X
Kansas	No	Yes			X			X
Kentucky	No	Yes						
Louisiana	No	Yes			X			
Maine	No	Yes	X			X		X
Maryland	Yes	Yes	X			X		X
Massachusetts	Yes	Yes						
Michigan	No	Yes	X					
Minnesota	Yes	No	X					
Mississippi	No	Yes						
Montana	No	Yes	X					
Nebraska	No	Yes			X			
New Hampshire	No	Yes			X			
New Jersey	Yes	No	X					
Ohio	Yes	No						
Oklahoma	Yes	No	X					
Pennsylvania	Yes	No						
Rhode Island	No	Yes			X			
Tennessee	No	Discontinued 1973						
Vermont	No	Yes						
Washington	Disclosure requirement	No			X			
West Virginia	Yes	No			X			

a/ Exceptions are Alabama, Maryland, and Massachusetts.

b/ Where there is both State legislation and a State highway provision, the legislation is described: for description of the State highway buy-national restriction, see pp. 22 to 25.

ANALYSIS OF ISSUES RELATED TO STATE AND  
LOCAL BUY AMERICAN ACT RESTRICTIONSStatus of Court Decisions on the Validity of  
State and Local Buy American Act Restrictions

Over the years, State and local buy-national restrictions have been attacked in various State courts on several grounds.

Specifically, the following issues have been litigated concerning whether such provisions are unconstitutional

1. as undue interference with the powers of the Federal Government to regulate foreign commerce in violation of the Commerce, 1/ and Import-Export, 2/ Clauses of the U.S. Constitution;
2. as an encroachment upon the exclusive power of the Federal Government to conduct foreign affairs; and
3. as a barrier excluding products of other nations that are parties to the General Agreement on Tariffs and Trade (GATT) in violation of Pt. II, Article III, para. 4, of that Agreement, 3/ and

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1/The Commerce Clause (Article I, sec. 8, cl. 3) provides in pertinent part:

"[The Congress shall have the Power] To regulate Commerce with foreign Nations, and among the Several States \* \* \*."

2/The Import-Export Clause (Article I, sec. 10, cl. 2) provides in pertinent part:

"No State shall, without the Consent of the Congress, lay any Imposts or Duties on Import or Exports \* \* \*."

3/The General Agreement on Tariffs and Trade, entered into in 1947, is a multilateral international agreement to which the United States is a party. For the text of the original agreement, see 61 Stat. Pt. 5 (1947).

consequently, in contravention of the Supremacy Clause of the U.S. Constitution. 4/

In addition, State regulations and local restrictions that exclude foreign materials in public works contracts have been attacked as contrary to State statutes requiring competitive bids.

As discussed below, State courts have come to varying conclusions as to the validity of State and local Buy American restrictions.

Local and Administrative Restrictions  
Where State Statute Requires Competitive Bids

Two decisions concerning administrative and local Buy American restrictions were based on whether these provisions excluding bids of foreign materials violated State competitive bidding statutes. In both cases, the courts ruled they had.

The Texas Supreme Court held in 1963 that an order of the Texas Highway Commission requiring that only materials manufactured in the United States may be used in construction contracts was void because it contravened a Texas statute requiring that all State highway contracts be submitted to competitive bids. (Texas Highway Commission v. Texas Association of Steel Importers, Inc. 372 S.W.2d 525 (1963)). The Court, in holding the order invalid, said:

"If the Highway Commission could (without express statutory authority) restrict the locality from which it would accept manufactured material, it could as well restrict such materials to those manufactured within the State of Texas or

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4/The Supremacy Clause (Article VI, cl. 2) provides:

"This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the Supreme Law of the Land; and the Judges in every State shall be bound thereby, anything in the Constitution or Laws of Any State to the Contrary notwithstanding."

any particular county within the state. We are not concerned with restrictions which could be imposed by the Congress of the United States on the Legislature of the State of Texas but with the order of an administrative authority which must act in accordance with and not contrary to the acts of the legislative branch of government. Had the legislature proscribed foreign materials, we would have an entirely different question. There might be some constitutional objection to such a statute, but in the present case the Legislative decision is one favoring free and unrestricted bidding." 372 S.W.2d 525, 527 (Texas 1963).

Several years later, a New York court came to the same conclusion concerning a resolution passed by a county legislature requiring that all structural steel and various other steel items to be used in public works projects be manufactured in the United States. Section 103 of the General Municipal Law of the State of New York 5/ requires public works contracts to be awarded "to the lowest responsible bidder \* \* \* after advertisement for sealed bids in the manner provided in this section."

Holding the county resolution in "fatal conflict" with Section 103, the court said:

"There may be excellent reasons why United States industry and labor should be protected-- at the expense of taxpayers--from importation of foreign manufactured steel. The attempt here, however, by a county legislative body to intrude into this area of mandated competitive bidding appears to be as much in conflict with the provisions of section 103 of General Municipal Law as would an attempt by county officials to confine bidding to one company, firm or individual \* \* \* or to exclude arbitrarily a potential bidder by a requirement that its plant be within the county \* \* \*." American Institute for Imported Steel v. County of Erie, 302 N.Y.S.2d 61, 64 (App. Div. 1969).

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5/23 N.Y. Gen. Mun. Law §103 (McKinney).

State and Local Buy American Restrictions  
Under the Commerce and Import-Export Clauses

As noted above, the Texas Supreme Court in the Texas Highway Commission case observed that there "might be some constitutional objection" to a State Buy American statute.

However, a lower New York court, considering the issue in 1968, 6/ held a county Buy American statute constitutional under the Commerce Clause. The Court's decision was reversed on appeal on other grounds, the county restriction held invalid, and the appellate court, therefore, found it "unnecessary to reach or pass" on the constitutional issues.

Meanwhile, a 1966 decision of a lower California court noted in dictum that, if it were not considered bound by an earlier California decision to decide the case on other grounds, it would have held California's Buy American statute in violation of the Commerce and Import-Export Clauses of the Constitution. Concerning the Import-Export Clause, the court indicated its belief that if a State may not impose a duty on foreign imports without the consent of Congress, it may not impose what amounts to a complete embargo, even in a limited area. 7/

This decision was affirmed on appeal on the broader ground that the California Buy American Act was an unconstitutional encroachment upon the Federal Government's exclusive power over foreign affairs and, therefore, constituted an undue interference with the United States' conduct of foreign affairs. 8/

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6/American Institute for Imported Steel, Inc. v. County of Erie, 297 N.Y.S.2d 602 (Erie City, 1968); rev'd in part, 302 N.Y.S.2d 61 (App. Div. 1969).

7/Bethlehem Steel Corp. v. Bd. of Comm's of the Dept. of Water and Power of the City of Los Angeles (Superior Ct. 1966), unreported, see Legal Memorandum, Mar. 16, 1970, Dept. of State, on the Constitutionality of State and Local Buy American Legislation.

8/Bethlehem Steel Corp. v. Bd. of Comm's of the Dept. of Water and Power of the City of Los Angeles, 80 Cal. Repr. 800 (Ct. App. 1969). This case will be discussed more fully under the next section.

However, a different conclusion was reached in a recent decision of the New Jersey Supreme Court. 9/

Asked to consider the constitutionality of New Jersey's Buy American statutes (which require the use, wherever available, of U.S. manufactured goods and farm products in county and municipal contracts and of U.S. materials in public works projects), the court concluded, as part of its opinion, that the statutes did not violate the Commerce Clause of the Constitution.

The New Jersey court relied upon the decision of Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976), in which the U.S. Supreme Court upheld the constitutionality under the Commerce Clause of a Maryland statute which favored Maryland residents over new residents in a State-sponsored program to eliminate abandoned automobiles by paying licensed processors to destroy such vehicles. Writing for the majority, Mr. Justice Powell concluded that nothing in the Commerce Clause "forbids a State, in the absence of congressional action, from participating in the market and exercising the right to favor its own citizens over others." 426 U.S. at 810.

The New Jersey Supreme Court reasoned that it would be "incongruous" that "a Buy New Jersey scheme would be exempt from Commerce Clause restrictions, but a Buy American scheme would not." 381 A.2d at 787. The court, noting the Federal Buy American Act, 41 U.S.C. §§10a-10d (1976), concluded:

"Congress has expressed a policy judgment that foreign commerce will not be unduly burdened when the federal government and its agencies prefer domestic products in their purchases. By enacting the Buy American Act, Congress has approved the policy of preferring domestic goods for federal governmental projects. State statutes patterned after the federal act are consonant with that policy. \* \* \* although Buy American statutes have been the subject of extensive criticism, \* \* \* it is our function to review the constitutionality, not the wisdom of statutes. We conclude that [the New Jersey Buy American statutes] do not violate the Commerce Clause." Id. at 788-89.

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9/K.S.E. Technical Sales Corp. v. N.J. Dist. Water Supply Comm'n, 381 A.2d 774 (N.J. 1977).

State and Local Buy American Statutes and  
Federal Foreign Affairs Powers

As mentioned earlier, 10/ the California Court of Appeals held unconstitutional the California Buy American Act as an unwarranted intrusion into the Federal Government's power to conduct its foreign affairs.

Relying upon the Federal Government's "implied powers" under the Constitution, as discussed by the Supreme Court in United States v. Curtiss-Wright Export Corp., 299 U.S. 304 (1936), the California court concluded that "foreign trade is properly a subject of national concern, not state regulation," and that therefore, the "California Buy American Act, in effectively placing an embargo on foreign products, amounts to a usurpation by this state of the power of the federal government to conduct foreign trade policy." 80 Cal. Rptr. at 803. The court went on to say, based on the 1968 Supreme Court decision of Eschernig v. Miller, 11/ that:

"Such state legislation may bear a particular onus to foreign nations since it may appear to be the product of selfish provincialism, rather than an instrument of justifiable policy. It is a type of protectionism which invites retaliative restrictions on our trade.

\* \* \* \* \*

The present legislation is an impermissible attempt by the State to structure national foreign policy to conform to its own domestic policies." 80 Cal. Rptr. at 805.

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10/See Bethlehem Steel Corp., supra note 8.

11/389 U.S. 429 (1968). The case involved an Oregon probate statute which conditioned the right of a non-resident alien to inherit from Oregon residents upon whether the country of that alien grants to U.S. citizen a similar reciprocal right. The statute was held to be an unconstitutional intrusion by a State into the field of foreign affairs which is entrusted by the Constitution to the President and Congress. (389 U.S. at 432.)



The New Jersey Supreme Court disagreed with this conclusion, 12/ at least insofar as the New Jersey Buy American statutes were concerned. Concluding that its statutes do not represent the kind of intrusion into Federal foreign affairs power which is proscribed, the New Jersey court noted that the California statute did not make any provision for the purchase of foreign material when procurement of U.S. items was unreasonably priced, "inconsistent with the public interest," or "impracticable," all of which are exceptions under the New Jersey Buy American statutes. Moreover, the New Jersey court believed that a State regulation affecting foreign trade is permissible so long as it "does not result demonstrably in a significant and direct impact upon foreign affairs." 381 A.2d at 784. Finding no such impact, the court concluded that its statutes did not represent an impermissible intrusion by the State into the field of foreign affairs, constitutionally reserved to Congress and the President.

State and Local Buy American  
Restrictions Under GATT

One of the earliest cases involving GATT 13/ and domestic preference statutes concerned a labeling statute of the Territory of Hawaii. The statute required anyone who offered imported chicken eggs for sale to display conspicuously a sign in letters at least 3 inches high, bearing the words, "WE SELL FOREIGN EGGS." A shopkeeper named Ho was arrested for offering Australian chicken eggs for sale without displaying such a sign. The Hawaii Supreme Court 14/ found for the defendant, holding the statute unconstitutional in violation of the Supremacy Clause, in that the statute conflicted with Article III,

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12/See K.S.B. Technical Sales, supra note 9.

13/See supra note 3.

14/Territory v. Ho, 41 Hawaii 565 (1957).

para. 1 of GATT 15/ to which both the United States and Australia are signatories.

The Court found that the Hawaii statute was enacted to protect domestic production and constituted "a disguised restriction on international trade." 41 Hawaii at 570-71. As such, the Court believed the statute conflicted with the GATT provision which, as a treaty, is the supreme law of the land.

Several years later, a California court held that California's Buy American statute was "unenforceable" since it conflicted with Article III of GATT, and hence with the "supreme law of the land." 16/ The case concerned a proposed procurement of turbines and other equipment for a power generating station.

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15/"The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale \* \* \* or use of products \* \* \* should not be applied to imported or domestic products so as to afford protection to domestic production."

John H. Jackson notes in his definitive work on the GATT agreement, World Trade and the Law of GATT (1969), at pp. 287 and 288:

"Another interesting case which was brought to GATT involved a regulation that required firms that sold imported eggs to display a placard stating, 'We sell foreign eggs.' The GATT complaint was withdrawn when domestic litigation in the offending state resulted in a judgment applying GATT to invalidate the local law as contrary to Article III, paragraph 4. The GATT CONTRACTING PARTIES have also adopted a report which states that 'requirements going beyond the obligation to indicate origin would not be consistent with the provisions of Article III, if the same requirements did not apply to domestic producers of like products.'"

16/Baldwin-Lima-Hamilton Corp. v. Superior Court, 25 Cal. Rptr. 798 (Dist. Ct. App. 1962).

In coming to its conclusion, the court considered whether the paragraph of Article III exempting "procurement by government agencies of products purchased for governmental purposes and not for resale or use in the production of goods for sale" (then para. 5) was applicable, and concluded it was not. The court said:

"The exception contained in paragraph 5, which we quote immediately above, is not operative in the instant situation since the turbines and other equipment are for use in the generation of electric power for resale and hence for 'use in the production of goods for sale.' Electricity is a commodity which, like other goods, can be manufactured, transported and sold." 25 Cal. Rptr. at 809.

A similar result was reached by the New Jersey trial court in the K.S.B. Technical Sales case, 17/ which concerned the procurement of pumps, pumping equipment, and other items to be used in the construction of a water treatment plant.

The trial court determined that the New Jersey Buy American statutes conflicted with paragraph 4 of Article III of GATT, 18/ since they discriminated against foreign products. Moreover, the Article III exception for procurement by governmental agencies not involving commercial resale, (para. 8) was not applicable because the pumps would be "used in the production and supply of drinking water" and hence would "be used in the production of goods for sale." 19/

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17/K.S.B. Technical Sales v. N.J. Dist. Water Supply Comm'n,  
376 A.2d 203 (Super. Ct. Ch. Div. 1977).

18/"The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favorable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use."

19/K.S.B. Technical Sales, 376 A.2d at 211.

The trial court's interpretation of GATT was affirmed by the appellate court, but reversed by the New Jersey Supreme Court. 20/

In its opinion, the New Jersey Supreme Court reasoned that the Water Supply Commission, in harnessing, treating, and channeling water to eight municipalities, was (1) performing governmental functions and (2) operating at cost, unlike a commercial enterprise. Moreover, the court determined that water is not private property which can be sold but is common property, ultimate ownership of which rests with the people, and is held by the State in trust for the public's benefit.

The court concluded that "the Commission's purchases of materials and equipment for its water treatment plant are for governmental purposes and not with a view for use in the 'production of goods for commercial sale,'" and thus, the project (1) is exempt under Article III of GATT, and (2) does not conflict with the Constitution.

BUY AMERICAN PROVISIONS IN SELECTED  
FEDERAL ASSISTANCE PROGRAMS

It should be noted that OMB Circular A-102, August 24, 1977, "Uniform Administrative Requirements for Grants-in-Aid to State and Local Governments," requires that grantee procurements provide "maximum open and free competition." Attachment O to that circular, which promulgates standards for establishing consistency and uniformity among Federal agencies in the administration of grants to State and local governments, provides that:

"3. Grantees may use their own procurement regulations which reflect applicable State and local law, rules, and regulations provided that procurements made with Federal grant funds adhere to the standards set forth as follows:

\* \* \* \* \*

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20/See supra note 9.

"(b) All procurement transactions regardless of whether negotiated or advertised and without regard to dollar value shall be conducted in a manner so as to provide maximum open and free competition."

The inference that may be drawn from the above is that State and local law may be applied by grantees in making procurements with Federal funds, but only to the extent these laws do not conflict with federally mandated laws, regulations and standards.

In dictum, the Supreme Court has noted, "barring some controlling constitutional prohibition," a Federal agency may set the terms and conditions governing how Federal funds may be used by grantees.

"There is of course no question that the Federal Government, unless barred by some controlling constitutional prohibition, may impose the terms and conditions upon which its money allotments to the States shall be disbursed, and that any state law or regulation inconsistent with such federal terms and conditions is to that extent invalid." King v. Smith, 392 U.S. 309, 333 n. 34 (1968).

There is a lack of uniform application of buy-national provisions for Federal assistance programs. In reviewing nine Federal programs, we found that as of September 30, 1978:

--Three require preference for domestic products

1. Rural Electrification, Department of Agriculture--loans and loan guarantees.
2. Local Public Works, Department of Commerce--grants.
3. Wastewater Treatment Works, Environmental Protection Agency--grants.

--One prohibits domestic preference

1. Urban Mass Transportation Administration, Department of Transportation--grants.

--Five do not address the issue, leaving such decision to the recipients' discretion (all under the Department of Transportation)

1. Federal Aviation Administration--grants.
2. Federal Highway Administration--grants.
3. Federal appropriations to Amtrak (has a self-imposed domestic preference).
4. U.S. Railway Association purchase of Conrail debentures and preferred stock.
5. Federal Railroad Administration--loan guarantees and purchase of redeemable preference shares.

Details of the requirements by the three agencies which employ domestic preferences follow.

#### Rural electrification

Section 401 of the Work Relief and Public Works Appropriation Act of 1938 (June 21, 1938, ch. 554, 52 Stat. 809, 818) purported to amend the Rural Electrification Act of 1936 (7 U.S.C. §903) to require:

"In making loans pursuant to this title and pursuant to the Rural Electrification Act of 1936, the Administrator of the Rural Electrification Administration shall require that, to the extent practicable and the cost of which is not unreasonable, the borrower agree to use in connection with the expenditure of such funds only such unmanufactured articles, materials, and supplies, as have been mined or produced in the United States and only such manufactured articles, materials, or supplies as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced or manufactured, as the case may be, in the United States."

The implementing regulations provide that materials are considered to be of domestic origin if the cost of the foreign products constitutes less than 50 percent of the cost of all products used therein. Domestic manufacturers are

given a 6-percent price preference over foreign suppliers. These requirements may be waived if like or comparable products are not available from domestic sources or like or comparable products of domestic origin are in short supply.

#### Public Works Employment Act of 1977

Section 103 of the Public Works Employment Act of 1977 (Public Law 95-28, May 13, 1977, 91 Stat. 116) added a Buy American type provision applicable to local public works projects supported with Federal grants

"(f)(1)(A) Notwithstanding any other provision of law, no grant shall be made under this Act for any local public works project unless only such unmanufactured articles, materials, and supplies as have been mined or produced in the United State , and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, and supplies mined, produced, or manufactured, as the case may be, in the United States, will be used in such project.

"(B) Subparagraph (A) of this paragraph shall not apply in any case where the Secretary determines it to be inconsistent with the public interest, or the cost to be unreasonable, or if articles, materials, or supplies of the class or kind to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality."

The statute is very similar to the language of the Buy American Act, and under provisions similar to the Buy American Act, domestic materials must be used if present in sufficient and reasonably available commercial quantities, unless the Secretary of Commerce determines that (1) the cost of domestic products is unreasonable, or (2) acquisition of the domestic product is inconsistent with the public interest.

Clean Water Act

Section 39 of the Clean Water Act of 1977 (Public Law 95-217, Dec. 27, 1977, 91 Stat. 1566, 1581), amended the Federal Water Pollution Control Act to require preference for domestic construction material for use in Clean Water Act projects.

"SEC. 215. Notwithstanding any other provision of law, no grant for which application is made after February 1, 1978, shall be made under this title for any treatment works unless only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States, substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States will be used in such treatment works. This section shall not apply in any case where the Administrator determines, based upon those factors the Administrator deems relevant, including the available resources of the agency, it to be inconsistent with the public interest (including multilateral government procurement agreements) or the cost to be unreasonable, or if articles, materials, or supplies of the class or kind to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality."

The language of the statute is very similar to the Buy American Act and to the domestic preference provision of the Public Works Employment Act. In one respect, it is perhaps less restrictive than these two provisions because it indicates that in the determination by EPA that application of domestic preferences would be inconsistent with the public interest, the Administrator of EPA will base his decision on those factors he considers relevant, "including the available resources of the agency."



Legislation subsequent to September 30, 1978

The Surface Transportation Assistance Act of 1978, (Public Law 95-599, 11/6/78) authorizing appropriations for the construction of certain highways, mass transportation in urban and in rural areas, and other purposes, contains a buy-national provision for a substantial preference for U.S. firms that furnish materials applicable to these programs.

Section 401 of the Act states that:

"(a) Notwithstanding any other provision of law, the Secretary of Transportation shall not obligate any funds authorized to be appropriated by this Act or by any Act amended by this Act and administered by the Department of Transportation, whose total cost exceeds \$500,000 unless only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, and supplies mined, produced, or manufactured, as the case may be, in the United States, will be used in such project.

"(b) The provisions of subsection (a) of this section shall not apply where the Secretary determines-

"(1) their application would be inconsistent with the public interest;

"(2) in the case of acquisition of rolling stock, their application would result in unreasonable cost, after granting appropriate price adjustments to domestic products based on that portion of project cost likely to be returned to the United States and to the States in the form of tax revenues;

"(3) supplies of the class or kind to be used in the manufacture of articles, materials, supplies that are not mined, produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

"(4) that inclusion of domestic material will increase the cost of the overall project contract by more than 10 per centum."

Domestic suppliers of steel and other commodities under these provisions may receive an almost absolute preference in instances where they can furnish the desired items. For example, since the 10-percent buy-national preference is applied to the cost of the overall project contract the preference provided may often approach or exceed the total cost of steel or other commodities furnished for the project. This may happen because labor and other non-material costs may amount to 50 percent or more of the overall project contract. The cost of any particular domestic material may only represent a small percentage of the project cost when compared to the combined cost of other materials, labor, and other non-material costs. The average value of steel in interstate and non-interstate primary roadways is about 10.6 percent of the total construction costs. Existing State buy-national preferences applicable to such items as construction materials, steel products, structural steel fabrication, and other products will for these programs be supplemented by this legislation. Such buy-national preferences will also be extended to the remaining States that do not now provide for such preferences.

When rolling stock is purchased, it is not clear how the Secretary of Transportation will determine that portion of project cost likely to be returned to the Federal and State Governments in the form of tax revenues.

The manner in which these preferences will be administered must await the issuance of implementing regulations and instructions by the affected agencies.

The Amtrak Improvement Act of 1978 (Public Law 95-421, 10/5/78) provides for the following buy-national preference.

SEC. 10. "Section 305 of the Rail Passenger Service Act (45 U.S.C. 545) is amended by adding at the end thereof the following new subsection:

"(j)(1) Except as provided in paragraph (2) or (3) of this subsection, the Corporation shall purchase only-

"(A) unmanufactured articles, materials, and supplies which have been mined or produced in the United States; and

"(B) manufactured articles, materials, and supplies which have been manufactured in the United States substantially all from articles, materials, and supplies mined, produced, or manufactured, as the case may be, in the United States.

"(2) The Secretary may, upon application of the Corporation, exempt the Corporation from requirements of paragraph (1) of this subsection with respect to the purchase of particular articles, materials, or supplies, if the Secretary determines that-

"(A) imposing such requirements with respect to such articles, materials, or supplies is inconsistent with the public interest;

"(B) the cost of imposing such requirements with respect to such articles, materials, or supplies is unreasonable; or

"(C) such articles, materials, or supplies or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

"(3) The provisions of this subsection shall not apply-

"(A) in any case in which the cost of the articles, materials, or supplies purchased is less than \$1,000,000; or

"(B) in the case of articles, materials, or supplies purchased pursuant to a contract entered into before the date of enactment of this subsection.

"(4) For purposes of this subsection, the term 'United States' means the several States, the District of Columbia, the Commonwealth of Puerto Rico, and any territory or possession of the United States."

While these provisions are similar to those in the Buy American Act (41 U.S.C. 10a-10d), the extent of buy-national preference to be provided to U.S. firms is contingent on the implementing regulations to be issued by the Secretary of Transportation.

#### STATE BUY-NATIONAL LEGISLATION

##### Alabama

Only materials, supplies, and products manufactured, mined, processed, or otherwise produced in the United States or its territories, if the same are available at reasonable prices, shall be used in the construction, repair, or maintenance of any public works project to be financed entirely by the State of Alabama, or any political subdivision thereof. (Alabama code tit. 50 sec. 16 (1); Cumulative Supplement, 1973.)

##### Hawaii

In all expenditures of public money for any public work or in the purchase of materials or supplies, preference shall be given to American products, materials, and supplies. (Hawaii Rev. Stat. sec. 103-24, 1976.)

The statute does not make it mandatory to use American products and a previous opinion from the Hawaii Attorney General's Office indicated that "preference" requires comparable products, and the determination of comparability of products is left to the administrative judgment and discretion of the department head. (State of Hawaii Department of Transportation Director's Memorandum No. 135, sec. 103.24, Sept. 8, 1975.)

##### Indiana

Every contract for the construction, reconstruction, alteration, repair, improvement or maintenance of public works must contain a provision that only domestic steel products are to be used or supplied in work contracted by public agencies. A 15-percent price differential is applied in determining whether the price of the domestic steel

product is reasonable. (1978 Indiana Acts 27; to be codified as Indiana Code 5-16-8, effective July 1, 1978.)

### Maryland

Every contract advertised for bid for the construction, reconstruction, alteration, repair, improvement or maintenance of public works must use or supply only domestic steel products. A 20-percent price differential is applied; however, if the product is produced in a labor surplus area, a 30 percent price differential is used. (1978 Maryland laws 947, to be codified as Maryland Annotated Code art. 78A, sec. 68-72. Enacted May 29, 1978; effective July 1, 1978.)

### Massachusetts

Legislation governing purchases of supplies and materials for State departments includes a preference, other considerations being equal, in favor, first, of supplies and materials manufactured and sold within the Commonwealth and second, of supplies and materials manufactured and sold elsewhere within the United States. (Massachusetts Annotated Laws ch. 7, sec. 22 (17); Michie/Law Co-op, 1973.)

### Minnesota

When all other factors are substantially equal, preference is to be given to those products which are manufactured to the greatest extent in the United States. This provision applies to all materials purchased by the State for governmental purposes. Also, to the extent possible, specifications are to be written so as to permit the State to purchase materials manufactured in the United States. (1978 Minnesota Session Law Service 259; West, to be codified as Minnesota Statute sec. 16.073. Effective July 1, 1978.)

### New Jersey

New Jersey law requires contract specifications to state that only manufactured and farm products of the United States, wherever available, be used in work contracted by counties and municipalities. Title 52:33-2 specifies that only domestic material be used on public works projects. (New Jersey Statutes Annotated 40A:11-18; West, 1978.)

Ohio

Only domestically produced steel is to be used in construction projects where State funds are involved. (1978 Ohio Legislative Bull. 35; to be codified as Ohio Rev. Code Annotated sec. 153.011. Enacted Oct. 28, 1977.)

Oklahoma

All agencies, boards, commissions, offices, institutions, or other governmental bodies of the State of Oklahoma shall purchase goods and equipment manufactured or produced in the United States of America. (Oklahoma Statutes Annotated title 61, sec. 51; West, 1963.)

Pennsylvania

Every contract document for the construction, reconstruction, alteration, repair, improvement or maintenance of public works must contain a provision that only domestic steel products be used or supplied in work contracted by public agencies. (1978 Pennsylvania Legislative Service 6; to be codified as Pennsylvania Statutes Annotated title 73, sec. 1881-87. Effective May 1, 1978.)

West Virginia

Every contract and subcontract for the construction, reconstruction, alteration, repair, improvement or maintenance of public works must contain a provision that only domestic aluminum, glass, or steel products be supplied in work contracted by public agencies. This requirement does not apply to public works contracts awarded for less than \$50,000. The same price differential preferences as shown for Maryland are applicable. (1978 West Virginia Acts 91; to be codified as West Virginia Code sec. 5-19. Effective June 1978.)

Highway departments buy-national restrictions

Alabama - Similar provisions in specification for Maine.

--All steel products that are to be part of any finished highway or bridge construction must be manufactured, processed, rolled, and fabricated in the United States, its territories, or possessions.

Citations

Alabama - Standard Specifications for Highways and Bridges, 106.01 (a), 1976 ed.

Maine - Bridge Division Special Provision, Section 504, 1968 ed.

Connecticut - Similar provisions in specifications for Kansas, Louisiana, Massachusetts, Michigan, Rhode Island, and Vermont.

--All structural steel, regardless of its source, is to be fabricated in the United States.

Citations

Connecticut - Highway Specifications, dated September 30, 1968.

Kansas - State Highway Division Special Provision to the Standard Specifications, sec. 702, art. 702.03 (a), 1973 ed.

Louisiana - Office of Highways Policy, 1977.

Massachusetts - Department of Public Works, Supplemental Specifications, subsec. 6.01, 1977 ed.

Michigan - Department of Transportation Standard Specifications, sec. 1.06.01.

Rhode Island - Department of Transportation Division of Public Works Specification, dated June 18, 1971.

Vermont - Agency of Transportation, General Special Provision Number 36, dated Apr. 1, 1978.

District of Columbia - Similar provisions in specifications for Montana.

--In accordance with the Federal Buy American Act, the contractor agrees that only domestic construction material will be used by the contractor, subcontractors, material men and suppliers on all highway and bridge projects.

Citations

District of Columbia - Standard Specifications for Highways and Structures, art. 24 (a), 1974 ed.

Montana - Department of Highways Standard Specifications, art. 06.10, 1976 ed.

Idaho

--Only those materials produced under acceptable quality control practices in this country are to be used in highway construction projects. (Transportation Department Board Policy B-16-03, 1969.)

Illinois

--All metal materials normally used on highway projects are to be domestically manufactured or produced. However, since 1974 the State has been waiving this requirement in its highway contracts by special provision, except as it applies to structural steel, prestressed steel strand, sign trusses and lighting towers over 45 feet in height. (Standard Specifications for Road and Bridge Construction, Sec. 106.01, 1977 ed.)

Iowa - Similar provisions in specifications for Nebraska.

--Structural steel fabrication is limited to North America. (Standard specifications for Highway and Bridge Construction, 1977.)

Citations

Iowa - Standard Specifications for Highway and Bridge Construction, Sec. 2408.01, 1977 ed.

Nebraska - Standard Specifications for Highway Construction, Sec. 708.01, 1973 ed.

Kansas - (See Connecticut.)

Kentucky

--All major structural steel and aluminum components of bridges, tunnels and sign support systems, for which either shop fabrication, shop inspection, and/or certified mill



test reports are required, are to be produced, milled, fabricated and manufactured in the United States. (Standard Specifications, art. 106.04, 1976 ed.)

Louisiana - (See Connecticut.)

--Foreign steel fabrication is permitted on certain large projects.

Maine - (See Alabama.)

Maryland

--Metals for highway, bridge and incidental structures shall be of domestic manufacture. (State of Maryland State Roads Commission, Specifications for Materials, Highways, Bridges and Incidental Structures, Mar. 1968.)

Massachusetts - (See Connecticut.)

Michigan - (See Connecticut.)

Mississippi

--Only domestic steel and wire products, including prestressing cable and strand may be used in the construction of State highways and bridges. The Mississippi specifications also prohibit the use of foreign paint and paint components in road and bridge construction. (Mississippi Specifications for Road and Bridge Construction, Subsec. 700.01 and 710.01.)

Montana - (See District of Columbia.)

Nebraska - (See Iowa.)

New Hampshire

--The use of structural steel is restricted to that which has been rolled and fabricated in the United States. (Standard Specifications for Road and Bridge Construction, sec. 550.2.2.1, 1977 ed.)

Rhode Island - (See Connecticut.)

Vermont - (See Connecticut.)

Impact of buy-national legislation

A buy-national policy benefits domestic industry and the workers to the extent that it increases the demand for the industry's product beyond what it would be in the absence of the policy. In addition, the policy can create a subsidy for the industry if, because of capacity limitations, the Government's greater demand for a product induces an increase in its price. Alternatively, the Government's commitment to purchase the domestic product so long as its price does not exceed import prices by a certain percent may allow domestic producers to charge higher prices than they could otherwise. The net effect of this protective barrier is indeterminable. Specifically, it is impossible to measure how much trade is diverted by a buy-national barrier, the magnitude of the effects, and whether the buy national laws are, on the whole, favorable to the U.S. economy.

FOREIGN-SOURCE PROCUREMENT BY  
STATES AND ORGANIZATIONS

FEDERAL AID HIGHWAY PROGRAM

The Federal Highway Administration funds 70 to 100 percent of highway projects. From October 1976 to June 1978, about 10,000 contracts were awarded in the United States and Puerto Rico for projects totaling approximately \$9.7 billion. <sup>1/</sup> Through the Federal Highway Administration, we asked all the States for information on their foreign procurement involving Federal aid funds. We also visited the Washington and Michigan State Departments of Highways and reviewed foreign procurement on highway construction projects. Summarized on the next page are the States' responses regarding foreign steel procurement from October 1976 to June 1978. The specific projects on which foreign steel was used are listed where identified by the States; when this information was not made available or materials were purchased to use on several projects, the materials rather than the projects are listed. Foreign purchases reported by the States totaled \$97.8 million. This is an approximate figure because the States were unable to identify all foreign-source procurement and because the data reported included erection costs.

According to a Federal Highway Administration report, the value of steel in interstate and non-interstate primary roadways is 10.6 percent of the total construction costs. To relate foreign steel purchases to total steel procurement, we applied this percent against all contracts let from October 1976 to June 1978.

Value of contracts let	
October 1976 to June 1978	\$9,695,469,000
Steel use (1974-76)	<u>10.6 percent</u>
Estimated cost of steel delivered to site	\$1,027,720,000

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<sup>1/</sup>In this and in all subsequent figures, information on secondary roads is excluded.

Foreign Steel Procurement

<u>State</u>	<u>Project/steel materials</u>	<u>Value</u> (note a)
Alabama	Prestress strands, reinforcing bars	\$ 2,320,174
Arkansas	Structural steel	765,375
California	Several projects	17,125,000
Colorado	H-piling, prestress strands	462,399
Georgia	Steel piling	1,321,795
Hawaii	Prestress strands, reinforcing steel	1,182,608
Indiana	Steel piles, prestress strands, reinforcing steel	500,000
Kansas	H-pikes	375,940
Louisiana	Luling bridge	33,632,764
Massachusetts	Chicopee-Holyoke Bridge	85,640
Minnesota	Cedar Avenue Bridge	4,997,645
Nevada	Prestress strands	425,600
New York	Structural steel	23,650,000
North Carolina	Wilmington-Easculle Bridge	2,799,000
Tennessee	Chickamauga Dam	4,270,280
Texas	Structural steel, anchor bolts	1,630,709
Vermont	Structural steel	1,500
Washington	1.3 mile portion of Vancouver freeway	145,033
Wisconsin	Tower Drive Bridge	<u>2,116,915</u>
Total		<u>\$97,808,387</u>

a/Represents either costs of materials or in-place costs.

Michigan highway projects

From October 1977 to April 1978, contractors for Federally assisted highway construction projects in Michigan purchased foreign wire strand and Canadian steel tubing costing \$107,000. During fiscal year 1977, the Federal Highway Administration provided aid to Michigan totaling \$208 million.

Our analysis of materials used on construction for a highway bridge and its approaches showed that most items and non-material costs are not subject to foreign competition because:

- Labor costs represent about 25 percent of the cost of a typical highway construction project; other non-material costs for equipment, overhead, and an allowance for profit account for over 30 percent.
- It is standard practice for a prime contractor to deal with local subcontractors, suppliers, and equipment manufacturers because tighter management control, better communication, and more efficient performance is possible.
- American equipment suppliers are usually designated in bid specifications because design engineers are more familiar with the domestic products' specifications, dimensions, and performance characteristics than with comparable foreign products.
- Michigan specifications require that all structural steel be fabricated in the United States.

The steel items considered subject to foreign competition include

- piling for cofferdams,
- mesh for reinforcing concrete pavement,
- reinforcing bars for concrete bridge supports,
- posts for railings and sign supports,
- castings for the bridge operating mechanism, and
- grid for the bridge roadway and pedestrian walk.

A State design engineer estimated that costs for these items would total about \$476,000, or about 14 percent of the contract value. No actual foreign purchases were made for this project, which used the following materials and equipment.

	<u>Contract cost</u>	<u>Percent of cost</u>
Items subject to foreign competition:		
Estimated value of steel components in reinforced concrete, piling, reinforcing bars, wire mesh, and reinforced concrete pipe; structural steel; steel pipe, railings, sign posts cofferdams, grid, and castings	\$ <u>476,164</u>	14
Items not subject to foreign competition:		
Residual value of products containing above components (e.g. other material, labor, overhead, profit)	1,096,566	
Material purchased near construction site due to bulk and weight (e.g. aggregates, cement, gravel, concrete, concrete pipe, timber)	684,218	
Products containing low-grade cast iron and steel components	17,925	
Foreign items non-competitive in State, which contain no iron and steel	52,269	
Service-related items (removal work, excavation, backfill, test piles, labor, field painting, and maintaining traffic)	514,582	
Items unique to bridge construction, and custom made for a bridge	474,408	
Miscellaneous items:		
On-the-job training for minorities	2,520	
Fuel escalation	<u>85,000</u> <u>\$2,927,488</u>	<u>86</u>
Total contract costs	<u>\$3,403,652</u>	<u>100</u>

Washington highway project

In calendar year 1976, the Washinton Department of Highways awarded 289 contracts totaling about \$94.6 million. Our analysis of an \$8.29 million project--construction of 1.27 miles of interstate freeway in southwestern Washington--showed that the contractor used products containing about \$145,033 worth of foreign iron and steel.

Except for superstructure, pilings, and a steel casing, the contractor's request for material-source approval showed that the construction material would be domestic source. State records show that the steel casing was supplied by a Japanese firm, and State officials estimated that the foreign steel in the casing cost \$3,875.

The project included three highway undercrossing superstructures containing 1,324 linear feet of prestressed concrete girders and 15,011 linear feet of concrete pilings. State officials told us that the local manufacturer fabricating the girders and pilings used foreign-source prestressed strand costing about \$141,158. The officials also indicated that, during the past 4 years, all prestressed strand used on highway projects has been supplied by Japanese firms.

URBAN MASS TRANSPORTATION CAPITAL  
IMPROVEMENT AND OPERATING ASSISTANCE GRANTS

The Urban Mass Transportation Administration (UMTA) took the position that its grantees may not impose any restrictions or preferential procurement practices, other than a federally imposed cargo preference requirement for U.S. shipping firms. UMTA grantees could not give preference to U.S. products even though State or local laws impose domestic preference restrictions. The passage of the Surface Transportation Assistance Act of 1978 requires UMTA to apply a substantial buy-national preference. (See app. I.)

Of the eight UMTA grantee procurements for railcars, totaling \$481.1 million during 1976 through November 15, 1978, five, amounting to \$240 million, were from foreign firms. It is estimated that, for these foreign awards, U.S. content in the individual procurements ranged from 42 to 70 percent of the goods and services. We also obtained a perspective on UMTA's foreign source procurement in several States.

Railcar procurement

For 1976 through November 15, 1978, UMTA grantees contracted for railcars in the amount of \$481.1 million, with UMTA providing 80 percent of the funds in grants under section 3 of the Urban Mass Transportation Act of 1964, as amended. To gain a national perspective on the degree that UMTA recipients are using materials from foreign sources, we relied primarily on "An Analysis of the International Urban Railcar Market" (March 10, 1978), prepared by Gordian Associates, Inc., a subsidiary of Pullman Incorporated, and "The United States And the International Market For Rail Equipment" (March 1978), prepared for UMTA by Richard J. Barber Associates, Inc.

In response to a separate congressional inquiry, GAO is reviewing the Gordian Associates study, and we are using data developed thus far in that review. GAO's review of the Gordian study includes an assessment of the degree of American participation in the five awards made to foreign firms, which shows that there was a significant degree of U.S. content in each.

The value of awards to U.S. and foreign companies is shown on the following page.



Value of Awards to Domestic  
and Foreign Firms

<u>Mass transit authority</u>	<u>Foreign awardee</u>	<u>U.S. awardee</u>	<u>Number of railcars</u>	<u>Value of award (note a) (millions)</u>	<u>Percent of total awards</u>
Cleveland	Breda		48	\$ 31.0	
Delaware	Canadian- Vickers		46	34.7	
Chicago/S. Suburban	Bombardier/ MLW		36	27.7	
Boston	Hawker- Siddeley		190	90.4	
Atlanta	Franco-Belge		<u>100</u>	<u>56.3</u>	
			<u>420</u>	<u>\$240.1</u>	50.0
Boston		Pullman- Standard	60	\$ 25.8	
Chicago Regional and West Suburban Transit		Budd	102	45.9	
New Jersey and Conrail		General Electric	<u>230</u>	<u>169.3</u>	
			<u>392</u>	<u>\$241.0</u>	<u>50.0</u>
Total			<u>812</u>	<u>\$481.1</u>	<u>100</u>

a/Includes initial award plus options exercised.

No U.S. companies submitted bids for the Delaware River Port Authority or for one Boston Mass Transit Authority contract, which together totaled \$125.1 million or about one-half of the awards made to foreign firms. Among the reasons why American firms did not compete, according to the Barber study, was that they lacked available production capacity or chose not to produce the equipment required.

### Washington and Oregon

Washington and Oregon have no restrictions against obtaining services or products from foreign sources, and UMTA projects in these States involved no direct purchases of foreign services and few foreign products. The only significant foreign purchases identified involved specially designed buses that were not available from domestic manufacturers.

From July 1, 1974 to April 30, 1978, UMTA approved or amended 20 capital projects estimated at \$120.9 million. Grantee budgets showed that project funds were to be used to

	(millions)
acquire land	\$ 3.4
purchase transit buses	42.0
purchase and install equipment	8.2
construct and rehabilitate facilities	61.2
pay contingencies	<u>6.1</u>
	<u>\$120.9</u>

We contacted grantees to determine their purchases or use of foreign-source materials on these projects.

### Transit buses

Most grantees purchased domestically manufactured buses. However, two grantees awarded contracts for about \$22 million to purchase specially designed buses manufactured by foreign firms.

The first project involved the purchase of 15 specially designed, medium-sized buses for a demonstration project to better serve the handicapped and elderly. A Mercedes

dealership in Portland, Oregon, was the sole bidder and was awarded a \$604,500 contract. A grantee official told us that the buses were manufactured in Germany and cost about \$312,000; the remaining \$292,500 was for bus parts and equipment purchased from domestic firms. UMTA funded 80 percent of these costs.

The second project involved the purchase of 150 three-axle, articulated buses by the Municipality of Metropolitan Seattle. No U.S. manufacturers were interested in manufacturing such a bus, so transit officials were forced to seek foreign manufacturers.

One bid was received from the Ikarius Bus Company of Budapest, Hungary, and one from A.M. General/M.A.N., which was the low bidder and received a \$22.6 million contract to furnish 150 buses. City officials told us that M.A.N. of West Germany was to manufacture 55 percent of each bus and A.M. General, a U.S. firm, was to manufacture 45 percent. M.A.N. is supplying the bus shells, mechanical components, and smaller items, while A.M. General will provide the bus interiors.

According to Seattle City officials, current total costs, including escalation to compensate for inflation, are approximately \$26.5 million. M.A.N.'s 55 percent is about \$14.3 million, of which UMTA is paying 80 percent, or about \$11.5 million.

### Equipment

Review of the equipment purchases showed only a few foreign acquisitions of mechanical equipment, whose costs seem insignificant compared with aggregate project costs. According to grantee officials, a drill press, a forklift, and two mobile wheel lifts were purchased from foreign manufacturers. The drill press and forklift were acquired on the same project and cost less than \$13,000, or approximately 9.2 percent of a \$142,000 line item for maintenance tools and equipment. Further, the purchase price of the two items was less than 2 percent of total project costs of \$735,200.

Similarly, the two mobile wheel lifts cost less than \$38,000, or approximately 23 percent of a \$165,170 line item for shop equipment. In this case, the purchase price of the two items was less than 0.3 percent of total project costs of about \$14 million.

### Construction

Our review of construction for two transit system projects--a maintenance and administrative facility and a city transit mall--costing about \$24 million showed that no services or products were purchased directly from foreign firms. According to the contractors, foreign components used in manufacturing the construction materials are not readily identifiable, but they believed that the construction material used contained insignificant amounts of foreign material.

The contract for the maintenance and administrative facility involved constructing a 60,000-square-foot administration building and a 106,000-square-foot maintenance garage for 300 buses. The transit mall work essentially involved resurfacing and refurbishing the streets and sidewalks of 23 downtown city blocks in Portland, Oregon. No foreign firms bid on these contracts.

The major products used on these two projects (brick, granite, concrete, reinforcing steel, conduit, wire, pipe, and cedar) were purchased from domestic firms. For example, the pipe and mechanical accessories, costing approximately \$2 million, for the maintenance and administrative facility were purchased from a Portland firm. The contractor did not know whether any foreign materials were used in manufacturing these products, and the subcontractor said that, to the best of his knowledge, the material and supplies were U.S. products. When asked about the various types of construction materials used, other subcontractors also said that they believed the items were of domestic origin.

### Ohio and Michigan

From July 1, 1974 to April 7, 1978, UMTA approved grants totaling over \$214 million to regional transit authorities in Ohio and Michigan. We inquired into the extent of foreign purchases made by regional transit authorities which received \$5 million or more in UMTA grants. Five authorities were contacted in Ohio--Cleveland, Dayton, Columbus, Toledo, and Cincinnati--and two in Michigan--Detroit and Grand Rapids. These seven regional authorities received about 88 percent of the UMTA grants provided in the two States.

Cleveland purchased light railcars and Dayton purchased electric trolley buses at an estimated total cost of \$43 million, with UMTA's 80-percent share representing about

\$34.4 million, or 16 percent of the total grant funds provided in the two States. In addition, Cleveland is expecting foreign competition for a future purchase of heavy railcars.

Foreign purchases made by  
Cleveland and Dayton

The Greater Cleveland Transit Authority has awarded contracts for \$36 million in foreign transit equipment. The purchases were made under a \$98-million transit improvement project, with UMTA funds covering 80 percent, or \$78.4 million. As of June 26, 1978, commitments under the project totaled \$52.9 million, with foreign purchases representing 68 percent of the total. Cleveland expects to use part of the uncommitted \$45.1 million to purchase about 70 heavy railcars and the remainder primarily for land acquisition and construction.

The major foreign purchase was a \$31 million award to Breda Costruzioni Ferroviarie S.p.A. of Pistoia, Italy, for 48 light railcars. With escalation factors for inflation and spare part purchases, the contract will be worth about \$35.4 million over its life. Breda won the award in competition with 10 railcar builders from 6 countries. The three lowest responsive bids were from Breda, \$30,960,000; Pullman Standard, a U.S. firm, \$34,354,000; and Cleve-Trans, a consortium of a Canadian firm and a U.S. firm, \$34,740,000. Cleveland transit officials told us they considered rejecting the low bid because Breda was a foreign firm, but UMTA informed them the lowest responsive bid must be accepted. The officials noted, however, that Breda has voluntarily agreed to purchase about 40 percent of the total system from American suppliers. For example, the brake and air-comfort systems will be made in the United States or will have U.S. components and the final assembly of the cars will be done in Ohio.

Cleveland's other foreign purchase was a \$764,000 self-propelled maintenance and line car. The two bids received were from Nissho-Iwai American Corp., a Japanese trading firm, \$764,000; and Maxson Corp., a U.S. firm, \$817,000. In compliance with UMTA policy, the contract was awarded to the low bidder.

The Dayton transit authority, known as the Miami Valley Regional Transit Authority, has awarded one contract for \$6.8 million in foreign transit equipment. The purchase was made under an \$18.8-million transit improvement project, with UMTA funds covering 80 percent or \$15.1 million. As of June 26, 1978, commitments under the project totaled \$17.3 million, with the foreign purchase representing 39 percent of the total. Dayton officials do not expect foreign competition for the remaining uncommitted \$1.5 million.

The \$6.8 million contract was awarded to Flyer Industries, Ltd. of Winnipeg, Canada, for electric trolley buses. Flyer was the only bidder, although a Dayton official said the authority tried to get U.S. firms interested in the contract. Subsequent to the award, a U.S. firm--A.M. General Corporation--entered the market and is now building trolley buses for Philadelphia and Seattle.

Dayton officials estimate that about 50 percent of the components for Flyer's trolley bus are made in the United States, such as the coach components, flooring, steering, and electrical system.

#### Industry officials' comments on foreign competition

We asked officials of the Budd Company and the General Motors Corporation for their comments on foreign competition facing domestic rail and bus manufacturers.

The Budd officials generally reiterated the statements in their testimony before the Senate Committee on Governmental Affairs on April 5, 1978. The principal point was that, while foreign rail suppliers under UMTA policy have free and unrestricted access to U.S. markets, foreign governments restrict competition to domestic suppliers and/or subsidize their companies through various forms of financial aid. The Budd officials had recommended that the Congress take appropriate action to ensure the continued viability of the domestic industry.

General Motors officials said that foreign competition currently does not pose a threat to domestic manufacturers of standard large passenger buses used by most U.S. transit systems, and they readily agreed that domestic firms dominate

this market. They noted, however, that foreign firms do compete for the specialty bus market--minibuses, electric trolley buses, etc.--which they do not manufacture. U.S. transit authorities currently procure about 4,200 buses annually, with the specialty market making up only about 500 of the total.

PURCHASES OF CONRAIL DEBENTURES  
AND PREFERRED STOCK

On April 1, 1976, the Consolidated Rail Corporation (Conrail) began operating major segments of the former Penn Central, Erie Lackawanna, Reading, Lehigh Valley, Lehigh and Hudson River, and Central of New Jersey railroads under a reorganization plan developed by the United States Railway Association pursuant to the Regional Rail Reorganization Act of 1973, as amended (45 U.S.C. 701). The purpose of this legislation was to restructure bankrupt railroads in the Northeast and Midwest sections of the country into an economically viable rail system.

The reorganization plan was approved by the Congress on November 9, 1975, and provided for Government investment in Conrail of up to \$2.1 billion through the end of 1979 by the purchase of debentures and preferred stock. The Federal funds are being provided to supplement Conrail's own internal cash flow for operating and rehabilitating the properties acquired from the bankrupt railroads.

To date, the Government has purchased the Conrail debentures and preferred stock shown below.

<u>Date</u>	<u>Debentures</u> (000)	Series A <u>preferred stock</u> omitted)
April to June 30, 1976	\$ 309,300	
July 1 to Sept. 30, 1976	309,300	
Sept. 30, 1976 to Sept. 30, 1977	381,400	\$ 31,300
Sept. 30, 1977 to June 30, 1978	<u>          </u>	<u>541,000</u>
Total	<u>\$1,000,000</u>	<u>\$572,300</u>

In contracting, Conrail considers price, quality, ability to deliver the goods in the necessary timeframe, recognition of minority vendors, preservation of competitive environment, and continuation of reliable sources of supply. Conrail announced in October 1977 that it would purchase all 1978 rail requirements from domestic sources and, in fact, has made no foreign purchases since mid-January 1978.

We asked Conrail for a list of all foreign purchases, other than service contracts and fuel-related items, in excess of \$200,000. This level was established in order to obtain information on major contracts in a manner which would enable us to gather the data in a timely fashion. We also requested information about individual awards along with the second and third bids and about whether the sources were domestic or foreign.

Between April 1, 1976 and April 1, 1978, Conrail procurement totaled \$1.5 billion, over 98 percent of it from domestic sources. Eighteen contracts, totaling about \$25 million were awarded to foreign sources. Twelve of these contracts were awarded on the basis of price and accounted for \$20,177,092, or 81 percent of total foreign procurement; six were made because there were no other responsive bidders or on the basis of engineering evaluations.

Items purchased from foreign sources included

steel wheels	rail anchors	tool tampers
tie plates	ballast regulators	ballast crib
track spikes	switch tampers	remover
back hoes	ballast undercutter	welder stripper

For the 12 contracts, American manufacturers submitted the second lowest bid 8 times; they appeared to be the least competitive in bidding on steel wheels, which accounted for the remaining 4 contracts.

To determine what effects a price differential might have on the extent of foreign procurement, we applied the 6-percent and a 12-percent 1/ preference currently required by the Federal Buy-American Act and found that their use

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1/A 12-percent differential is used if the low domestic bidder is a small business or is in a labor surplus area.



would have made a significant difference in Conrail's procurement. Five awards would have gone to domestic manufacturers had a 6-percent domestic preference been applied and 8 awards had a 12-percent differential been used, as analyzed below.

<u>Differential</u>	<u>Cost of total procurement</u>	<u>Foreign source</u>		<u>U.S. source</u>		<u>Increase in costs for U.S. source</u>	
		<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
0	\$20,177,092	\$20,177,092	100	0	0	0	0
up to 6 percent	20,550,677	9,448,887	46	\$11,101,790	54	\$373,585	2
up to 12 percent	20,927,345	5,337,036	26	15,590,309	74	750,253	4

Had Conrail instituted a preference of up to 6 percent for American manufactured products, 54 percent of its foreign purchases would have been procured domestically and would have increased the amount that Conrail spent by 2 percent. Similarly, had Conrail instituted a preference of up to 12 percent, 74 percent of the foreign procurement would have been purchased domestically at an increased cost of 4 percent.

#### GUARANTEES OF OBLIGATIONS AND PURCHASE OF PREFERENCE SHARES OF U.S. RAILROADS

The Federal Railroad Administration in the Department of Transportation administers railroad rehabilitation and improvement financing under the Railroad Revitalization and Regulatory Reform Act of 1976. Section 511 provides for guarantees of obligations and section 505 provides for U.S. purchases of redeemable preference shares issued by railroads. We obtained information on purchases made by three railroads--the Chicago, Milwaukee, St. Paul and Pacific Railroad Company; Chicago and North Western Transportation Company; and Illinois Central Gulf Railroad Company. These railroads received Federal funding of \$76.0 million or 96 percent of the \$79.2 million advanced as of September 30, 1978. Neither the Federal Railroad Administration nor any of the railroads contacted require preference for domestic products.

The Chicago, Milwaukee, St. Paul and Pacific Railroad Company received \$18.3 million as of September 30, 1978, through the sale of redeemable preference shares to the U.S. Government. It identified one foreign procurement of rail anchors as of June 1978, totaling \$80,359. A domestic supplier filled this order for rail anchors from both domestic and foreign sources.

The Chicago and North Western Transportation Company reported that as of June 1978 it had spent \$2.7 million on foreign equipment and materials. The Company noted, however, that these purchases may be used on several of its own programs so it cannot be directly tied to the \$34.5 million received as of September 30, 1978, through the sale of redeemable preference shares to the U.S. Government.

The Illinois Central Gulf Railroad Company received \$23.2 million through the sale of redeemable preference shares to the Government as of September 30, 1978. The company estimated that as of May 1978 it had spent \$177,000 for foreign equipment and materials, including an estimated \$113,000 in equipment leases.

#### AMTRAK GRANTS AND NORTHEAST CORRIDOR IMPROVEMENT PROGRAM

Amtrak spent \$59.9 million for foreign equipment and parts; 4.2 percent of its total expenditures of \$1.4 billion through February 1978. Most of the foreign procurement occurred because the equipment and parts were not available domestically. Although Amtrak was not for this period subject to Federal buy-national preferences, it limited most of its procurement to available domestic sources. Amtrak also encourages development of alternative U.S. sources of supplies and equipment in instances where such items must be procured from foreign sources.

Amtrak continues to find it necessary to rely on more advanced foreign equipment, some of which it leases for testing and modification purposes. Through February 1978, it leased locomotives from foreign manufacturers costing \$4.7 million of its \$59.9 million foreign-source expenditures. Locomotives modified to meet U.S. rail needs may then be manufactured by American companies under license agreements.

The Amtrak Improvement Act of 1978 (Public Law 95-421, Oct. 5, 1978) includes a domestic preference provision for all Amtrak purchases of more than \$1 million in contracts entered into after the date of enactment. (See app. I.)

Before this legislation was enacted, Amtrak had applied a buy-national provision that stated:

"No procurement may be made from foreign sources without the prior written approval of the Vice-President--Operations Support. No procurements from foreign sources are to be submitted for approval until it can be shown that the product or service is not available in this country or will not be available in this country in time to meet schedule requirements and, further, that all possible alternatives to foreign procurement, including specification changes and schedule relief, have been explored."

Amtrak told us that previously it had not usually used a price differential in evaluating bids because it was not in the market for foreign equipment unless it was sole source or unavailable in the United States. In the instances where price was the reason for the foreign purchase, the differential between the winning foreign manufacturer and the closest U.S. bids ranged from 28 to 109 percent.

We were told that Amtrak's policy had been in effect since Amtrak began operations but that its policy of buy-national preference was not formalized until November 16, 1976.

#### Level of foreign procurement

The information furnished by Amtrak regarding its foreign purchases is on a calendar year basis. According to figures Amtrak provided during hearings on April 5, 1978, before the Subcommittee on Federal Spending Practices and Open Government, Senate Committee on Governmental Affairs, its expenditures for foreign-source materials since it began operations in May 1971 through February 1978 totaled \$59.9 million, as shown on the following page.

<u>Calendar year</u>	<u>Total</u>	<u>Domestic</u>	<u>Foreign</u>	<u>Annual percent foreign</u>
	-----millions-----			
1972	<sup>a</sup> \$ 114.2	\$ 114.2	\$ 0	0
1973	106.4	106.4	(b)	
1974	257.9	238.5	19.4	7.5
1975	329.1	307.1	22.0	6.7
1976	230.4	225.4	5.0	2.2
1977	336.8	332.1	4.7	1.4
	<sup>c</sup> 65.4	56.6	8.8	-
Total	<u>\$1,440.2</u>	<u>\$1,380.3</u>	<u>\$59.9</u>	4.2

a/Includes expenditures from May 1, 1971 through 1972.

b/Negligible.

c/As of February 28, 1978.

Although Amtrak's percent of expenditures for foreign manufactured goods has decreased on an annual basis, foreign purchases during January and February 1978 exceeded those for either 1977 or 1976.

The following list details Amtrak's major foreign purchases through March 10, 1978. Unless otherwise indicated, these foreign purchases were made on the basis of sole-source supply (spare parts) or nonavailability in the United States. Some of the domestic companies provided equipment from foreign sources; for example, in 1975, Pullman Standard and Rohr subcontracted with foreign companies and in 1977 and 1978 Allied International and the Electromotive Division of General Motors provided foreign products. Amtrak told us that all rail and railroad ties are purchased domestically.

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<u>Calendar year</u>	<u>Vendor</u>	<u>Item</u>	<u>Value</u> (thousands)
1974	Sumitomo Shoji (Japan)	Locomotive wheels car wheels	\$ 513 24
	British Steel (Great Britain)	Locomotive wheels	160
	Turbomeca (France)	Spare engines	714
	Voith (Germany)	Transmissions	26
	ANF (France)	Turbo trains spare parts	17,226 <u>715</u>
	Total		<u>\$19,378</u>
1975	Pullman Standard (U.S.)	Brake, batteries, and superliner car trucks purchased from Wagon Union (Germany) and Nife, Inc. (Sweden)	a\$ 8,300
	Rohr (U.S.)	Turboliner equipment purchased from ANF (France)	9,600
	ASEA (Sweden)	Lease of Swedish electric locomotive for testing	627.5
	ANF (France)	Turbo repair and spare parts	787
	Knorr (Germany)	Brake discs	454
	Turbomeca (France)	Engine and repair parts	2,060
	Voith (Germany)	Turbo transmissions	<u>103</u>
Total			<u>\$21,931.5</u>

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1976	Alsthom (France)	Lease of French electric locomotive for testing	\$ 1,200
	Knorr (Germany)	Brake discs parts and spares	474
	ANF (France)	Turbo repair and replacement parts	2,031
	Turbomeca (France)	Turbo engines	877
	Valdunes (France)	Wheels	<sup>a</sup> 199
	Voith (Germany)	Turbo transmissions	<u>212</u>
	Total		<u>\$4,993</u>
1977	Valdunes (France)	Axles	<sup>a</sup> \$ 226
	Turbomeca (France)	Turbo engines	509
	Voith (Germany)	Turbo transmissions	15
	Knorr (Germany)	Brake disc parts and spares	607
	Bombardier/MLW (Canada)	Lease of 2 electric trains and spares	2,860
	Waukesha (Great Britain)	Repair rings and clutch parts	11
	ANF (France)	Turbo repair parts	466
	Geismar Stumec (France)	Grinders tie borers	5.8 <sup>a</sup> 3.4
	Allied Interna- tional (U.S.)	Switch and valves procured from foreign sources	<u>26</u>
	Total		<u>\$4,729.2</u>

1978	Waukesha (Great Britain)	Bearing parts	\$ 4
	ANF (France)	Spare parts	100
	Turbomeca (France)	Spare parts	138
	Voith (Germany)	Transmission spare parts	5
	Valdunes (France)	Turbo wheels	179
	Electromotive Division of General Motors (U.S.)	Propulsion packages for 15 locomotives, ASEA, (Sweden)	<u>8,372</u>
	Total		<u>\$8,798</u>

a/Awarded on basis of price.

Efforts to develop alternative domestic sources

Railroad equipment manufacturers concentrated on freight operations as the rail passenger industry declined in the United States. In response to a congressional question, an Amtrak official explained that foreign locomotives were leased because:

"When Amtrak assumed responsibility for passenger service in 1971, the only electric locomotives operating in the Northeast Corridor were the GG-1 units built in the 1930's. In an effort to improve services, increase train speeds, and reduce maintenance costs, Amtrak purchased 26 model E-60 electric locomotives from the General Electric Company. Subsequently, the Congress approved the Northeast Corridor Improvement Program and recognized that passenger locomotives operating in the Corridor should be lightweight to help achieve the higher speed standards of the program and to minimize wear on the upgraded track and consequently maintenance expense. The 336,000 lb. E-60 locomotive, based

on freight unit design, did not meet that requirement, and therefore, we concluded that a new high-speed electric locomotive would be needed to meet the Congressionally mandated trip time goals.

"No new electric locomotives designed specifically for passenger service have been built in the United States for 40 years, and to commence such a design in this country would be time-consuming and expensive. However, in a number of foreign countries, research and development has continued over the years and locomotives containing many of the characteristics required for the Corridor operation were already in operation. By leasing and testing the best of these locomotives under American operating conditions, Amtrak has been able to determine which of the design and construction features can be utilized in new locomotives for the Corridor. In this way, we have been able to take advantage of proven foreign technological advances, insure that these are feasible in the American environment, shorten engineering and design time, and reduce the cost of such an effort."

American manufacturers arranged to produce these modified, foreign-designed locomotives under license agreements. Amtrak's purchase contract with ANF required ANF to arrange with a U.S. licensee to manufacture the turbo trains domestically. ANF entered into such a contract with Rohr. In another instance, General Motors contracted with Amtrak to produce lightweight electric locomotives designed by ASEA of Sweden. However, not all parts were available from U.S. sources. As shown in the table above, Rohr purchased turboliner parts from ANF in 1975, and General Motors' Electromotive Division purchased propulsion packages from ASEA in 1978.

In 1974, Amtrak purchased French ANF turbo trains because no domestic equipment was available to meet Amtrak needs. This acquisition necessitated further foreign purchases of sole-source spare parts. As shown below, Amtrak is working with several American companies to develop alternative domestic sources for turbo train parts. From January 1975 to February 1978, a total of \$1.96 million was purchased from these alternative sources.



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<u>Vendor</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>Alternative to</u>
Abex Corp.	\$15	\$ 2,060	\$ 8,495		ANF brake shoes
Adams & Westlake	7,168	29,291	3,733		ANF windows
Berry Bearing	6,782	28,836	35,753		ANF bearings
Graham White Sales	21,472	28,353	26		ANF windshields
Kensington Products	5,390	23,368	76,045		ANF brakes and compressors
Kirby Sheet Metal	8,575	61,764	40,094		ANF fabrication
Aviation Power Supply	22,448	579,669	581,726	\$171,105	Turbomeca engine parts and overhauls
Power Pars	4,836	2,800	2,022		ANF rubber and plastic parts
Vapor	13,224	13,560	19,371		ANF toilets
Hoover		22,830	16,875		ANF seat parts
Nelson		32,245	6,880		ANF windows
Shell Oil		5,899	5,363		Voith transmission oil
Tarpenning Lafallette		13,350			ANF fuel tanks
A.M.I.			4,680		ANF seats
Anixter Mid-Control			6,780		ANF wiring
Art Craft			1,946		ANF window curtain and seat repairs
Donaldson Co.			23,053	8,340	Turbomeca filters
Crimes Development Center			4,888		ANF coffeemakers
Litton Industries			2,415		ANF microwave ovens
Molecular Plastic			2,095		ANF plastics
R.C.A. Rubber			1,078		ANF rubber products
Total	<u>\$90,410</u>	<u>\$844,025</u>	<u>\$843,317</u>	<u>\$179,445</u>	

Northeast Corridor

The Northeast Corridor, a 456 route-mile railroad line between Washington, D.C. and Boston, Massachusetts, was purchased in part by Amtrak from Conrail in April 1976 for \$86 million under the Railroad Revitalization and Regulatory Reform Act of 1976 (Public Law 94-210). A contractual arrangement between the Federal Railroad Administration and Amtrak defines Amtrak's role in the Northeast Corridor Improvement project.

The Act provided \$1.75 billion in Federal funds to the Northeast Corridor mainline rail system. This amount was to be used for Federally funded improvements up to a limit of \$1.6 billion and \$150 million to match each State/local dollar committed to nonoperational station improvements and right-of-way fencing.

The project is targeted to be completed in 1981 at a total cost of about \$1.82 billion.

Under the terms of the contract, Amtrak is responsible for procuring a large amount of the materials for the Northeast Corridor Improvement Program, following the Buy American Act and Executive Order 10582 in applying a buy-national preference. Officials told us that rail and railroad ties were purchased only from domestic sources.

The following information was provided to us regarding foreign purchases for the Northeast Corridor project from April 1976 to June 1978.

<u>Item</u>	<u>Quantity</u>	<u>Source</u>	<u>Cost</u>
Welding kit and accessories	8,139	Germany	\$ 347,730
Impact hammer and supplies	7	Lichtenstein	3,938
Rail profile grinders	3	France	7,485
Undercutter	1	Austria	574,950
Hi-speed switch tamper	5	Austria	1,121,610
Tachometer	6	Japan	<u>1,170</u>
Total			<u>\$2,056,883</u>

Foreign purchases represent only 1.4 percent of the \$143.8 million obligated for materials and equipment during this period. Procurement officials told us that foreign goods were purchased either because the items needed were available only from foreign sources or because domestic sources could not provide the items in time.

#### AIRPORT DEVELOPMENT AID PROGRAM

We obtained information about 10 Federal Aviation Administration Airport Development Aid Program (ADAP) projects in Ohio and Michigan and 17 in Washington State.

ADAP was established pursuant to the Airport and Airway Development Act of 1970 (Public Law 91-258) as amended, which directed that airport development grants be made to bring about a nationwide system of public airports adequate to meet present and future needs. The Airport and Airway Development Act Amendments of 1976 (Public Law 94-353) raised the annual program level to a range of \$500 million to \$610 million for fiscal years 1976-80.

In Ohio and Michigan, the projects totaled \$50.9 million, with grant funds contributing 65 percent, or \$33.3 million. The projects in Washington totaled \$14.2 million, with ADAP providing funds of \$11.8 million, or 83 percent of total project costs. In Ohio and Michigan, we found only two foreign procurements--\$20,000 for security fencing material and \$151,560 for two snow removal vehicles. No foreign purchases were confirmed in Washington.

We also examined purchases of foreign crash/fire/rescue vehicles by airports in States other than the three we surveyed. We were told that these other airports had purchased foreign vehicles from Chubb Fire Security, Ltd., London, England. The Massachusetts Port Authority received one in 1972 and one in 1975, the Port of Oakland received two in 1975, and the New York Port Authority received 12 during 1974 to 1976 for the three airports in its jurisdiction. New York and Massachusetts procurement officials and a representative from a U.S. manufacturer told us that at the time the vehicles were needed the Chubb equipment was the best available. The Chubb unit contains the following U.S.-manufactured components, which are estimated to be 20 percent of the total material cost.

<u>Component</u>	<u>Supplier</u>
Engine	General Motors
Gear box	Allison
Torque convertor	Allison
Water circuit valves	Weco FMC Corporation
Pump protection	Waterous Company
Public address system, siren and beacons	Federal Sign and Signal Corporation
Stainless steel-type option	Garsite Corporation
Electroneumatic valves	Stanway Corporation

Details of purchases in the three States covered by our review are discussed in the following sections.

#### Washington State

The contractors for Washington's projects made no direct purchases of services or products from foreign firms. The amount of foreign material used in manufacturing the major products, i.e., runway lighting fixtures, crushed rock, and asphalt, is unknown; however, indications are that it is less than 10 percent of the total cost of the item.

The Department of Transportation approved 17 ADAP projects totaling \$14.2 million for Washington during fiscal year 1977. The Federal participation in these projects totaled about \$11.8 million, or about 83 percent of total project costs. These projects involved construction and land and equipment acquisition. No Federal or State restrictions prevent grantees in Washington from acquiring the necessary services or products from foreign firms.

#### Land acquisition and construction

For airport construction projects (1) no services or products were purchased directly from foreign firms, (2) foreign material used in manufacturing the construction material was negligible, and (3) many of the services and items purchased were not subject to foreign competition.

The major service contracts for these projects involved runway improvements--primarily excavating, landscaping, surfacing, and installing airport lighting fixtures. No foreign bids were received for these services.

The major products used--crushed rock, asphalt, and airport lighting fixtures--were purchased from domestic firms. For example, the lighting fixtures were procured from a firm in Syracuse, New York. The contractors did not know whether any foreign materials were used in manufacturing these products, but a representative of the manufacturer told us that no foreign firm competed with the company in the U.S. market and the cost of any foreign material in an airport lighting package would be less than 10 percent.

Because crushed rock and asphalt are construction materials normally purchased close to the construction site, they would not be subject to foreign competition.

A fencing subcontractor said that he may have used some imported pipe and fittings on a job; however, his records were insufficient to determine the source of material used on a particular job. The cost of the material in question amounted to only \$3,500, or about three-tenths of 1 percent of total project costs.

Project funds are also used to pay for services or products which, by their very nature, are not subject to foreign competition. For example, funds were used to acquire land, to landscape airport extremities, and to relocate people. For the 17 projects, the cost of these items was about \$4.2 million or 29 percent of total project costs, with Federal participation amounting to approximately \$3.4 million. These types of costs were included in 12 of the 17 projects; 3 of these 12 projects solely involved acquiring land, preparing sites, and relocating people.

#### Equipment

Grantees are authorized under ADAP to acquire safety and security equipment as well as snow removal equipment. In 1977, two Washington projects provided funds to acquire a crash/fire/rescue vehicle and snow removal equipment. In both instances, however, the grantee purchased the vehicle from domestic firms.

We also reviewed fiscal year 1977 ADAP projects involving equipment acquisitions in other States in the region, since local Federal Aviation Administration (FAA) officials felt that foreign firms possibly could have bid

on such projects. We identified two projects for which foreign bids were received. One project provided for the acquisition of a crash/fire/rescue vehicle. A domestic firm was the low bidder, with a bid of \$254,663. A bid was also received from an English firm, but it was \$121,795 higher than the low bid.

The other project provided for the acquisition of snow removal equipment. A Canadian firm was the low bidder, with a bid of \$56,764. The next lowest bid was from a domestic firm for \$64,750. Because FAA officials mistakenly advised the grantee that only American-made products could be procured under ADAP projects, the bid was awarded to the domestic firm.

#### Ohio and Michigan

Foreign purchases identified under ADAP projects in Ohio and Michigan totaled \$171,560, or about three-tenths of one percent of the dollar value of the contracts reviewed. The purchases involved \$20,000 for fencing material and \$151,560 for two pieces of snow removal equipment.

From July 1, 1974 to September 30, 1977, FAA approved grants totaling about \$58 million for Ohio and Michigan. We inquired into the extent of foreign purchases made for airport improvements by the five largest grantees in each State and for airport vehicle purchases by all grantees. Inquiries were made of the ten selected grantees for airport improvements totaling \$47.3 million and vehicle contracts awarded by all Ohio and Michigan grantees totaling \$3.6 million. Together, the contracts totaled \$50.9 million, with Federal grant funds covering 65 percent, or \$33.3 million.

#### Airport improvement contracts

The selected grantees and prime contractors for airport improvement projects made no direct purchases of foreign services or products. In one instance, however, a contractor purchased a small amount of foreign fencing material costing \$20,000 through an American supplier. FAA, grantee, and contractor officials were unaware of any other purchases of foreign services and products.

The major service contracts involved improvements of runways, taxiways, and aprons. The work primarily entailed clearing land, excavating, grading, paving, constructing drainage structures, landscaping, and installing airport lighting fixtures. These services, by nature, are normally not subject to foreign competition. No foreign bids were received and the contracts were awarded to domestic contractors.

The major products used--aggregates, asphalt, cement, and airport lighting fixtures--were also purchased from domestic firms. FAA, grantee, and contractor officials told us that aggregates, asphalt, and cement are available in substantial quantities in Ohio and Michigan. Due to the bulky nature of the materials, they are normally purchased as close to the construction site as possible and, therefore, are not subject to foreign competition. The lighting fixtures must be purchased from an FAA-approved list of domestic manufacturers and, therefore, are not subject to foreign competition.

Only one of the contractors told us he had used a foreign product and he was unaware of the origin of the material until after it had been delivered by the American supplier. The purchase was made under a \$70,000 contract for construction of an airport security fence in Youngstown, Ohio. The fencing contractor said metal fence posts and top rails, costing about \$20,000, furnished by the American supplier were manufactured in Korea.

#### Airport vehicle contracts

Our inquiries disclosed only one purchase of foreign vehicles for \$151,560; all other vehicles were purchased from domestic sources.

The foreign purchase was for two snow removal vehicles for an airport near Traverse City, Michigan. Five bids were received, but three were rejected by the grantee due to substantial noncompliance with bid specifications. The two remaining bids were for \$169,500 and \$186,918. The award was made to the low bidder--a domestic supplier of vehicles produced in Germany. As a result of its review of the award, the FAA concluded that one of the rejected bids met the specifications. Since the rejected bidder's price of \$151,560 was lower than the accepted bid, FAA decided to limit its participation to 90 percent of the

rejected bid. However, the grantee was subsequently successful in getting the contract amount for the German vehicles reduced to the same price of \$151,560.

#### MUNICIPAL WASTEWATER TREATMENT PROGRAM

We reviewed foreign-source procurement for selected wastewater treatment construction projects in the States of Ohio, Michigan, and Washington which were largely funded through grants from the Environmental Protection Agency (EPA). Very few foreign-source materials were used in these projects because:

- Considerable use is made of bulk materials (aggregates, concrete pipe, etc.) and competition is usually limited to firms near the construction site.
- Product and equipment specifications generally favor domestic suppliers.
- Contractors, subcontractors, and labor are U.S.-source, whose costs represent a substantial portion of total project costs.

Some wastewater treatment equipment manufactured by U.S. companies contains nondomestic components costing over 50 percent of the total cost of the equipment. The Federal Procurement Regulations, which EPA is required to follow, provide that end products (e.g. pumps) must be composed of material of which less than 50 percent of their costs is of foreign origin and be of U.S. manufacture. U.S. firms receive a 6-percent price preference over firms that do not meet these requirements. Pumps for sewage treatment are manufactured in the United States with both an over and under 50-percent domestic component content.

The extent of U.S.-manufactured products which would come under a nondomestic classification when foreign components are considered is not known. However, EPA is proposing to require a certificate as to component cost for major items of equipment so that the Buy American provision can be more practicably applied.

Under the Federal Water Pollution Control Act (Public Law 92-500) enacted in 1972, EPA can fund up to 75 percent of municipal wastewater treatment project costs. A



Buy-American provision was added to the project requirements (effective February 1, 1978) under the Clean Water Act of 1977 (Public Law 95-217). Domestic preference requirements in this provision are very similar to those contained in the Federal Buy-American Act (see app. I).

### Ohio and Michigan

Our review of selected federally funded wastewater treatment projects in Ohio and Michigan showed that (1) grantees made no direct purchases of services or products from foreign firms, (2) contractors purchased some foreign products--mostly equipment--costing about \$3.8 million, and (3) most items for typical wastewater treatment projects are not subject to foreign competition.

From July 1, 1974 to April 30, 1978, EPA approved Ohio and Michigan project grants totaling about \$1.7 billion. We examined foreign purchases made by the Cleveland Regional Sewer District and the Detroit Metro Water Department, whose grants totaled \$337.5 million, about 19.8 percent of total EPA grants for Ohio and Michigan. Our inquiries concerned contracts awarded by the Cleveland and Detroit grantees for projects totaling \$248.3 million.

All contracts awarded by the Cleveland and Detroit grantees under their applicable EPA grants went to domestic construction firms. Consequently, any foreign products or materials used on the wastewater projects would have been purchased by the construction contractors and/or their suppliers and not directly by the grantees. According to grantee and contractor officials, construction contracts are not subject to foreign competition primarily because of the need to use onsite construction labor, i.e. electricians, plumbers, pipefitters, etc. No foreign firms bid on the construction contracts.

Grantee and contractor officials identified purchases of foreign products used on Cleveland and Detroit projects totaling \$3.9 million, or about 1.5 percent of the contract costs reviewed. As shown below, the principal purchases involved foreign equipment; i.e., an air compressor and heat exchanger costing about \$1.7 million for a Detroit oxygen plant, and pumps and centrifuges costing about \$1.4 million for Cleveland projects. The remaining purchases were for steel piling and other steel items.

<u>Description of product</u>	<u>Estimated cost</u>	<u>Origin</u>
Cleveland:		
Centrifuges	\$1,000,000	Japan
Steel pipe piling	330,000	Canada
Vertical turbine pumps	322,130	Japan
Steel pipe piling	98,600	Canada
Ash slurry piping	281,300	Canada
Drives for 12 vacuum filters	120,000	France
Detroit:		
Air Compressor	1,000,000	Germany
Heat exchanger	700,000	Japan
Steel bearing pile	10,000	Canada
Total	<u>\$3,861,430</u>	

The foreign purchases, however, are considered exceptions, as most construction materials and products are purchased from domestic firms. In the view of grantee and contractor officials, most construction materials and products commonly used in typical wastewater treatment construction projects are not subject to foreign competition. They said that such construction materials as cement and aggregates, because of their bulk, are normally procured locally and not subject to foreign competition. Also, domestic brand-name products and equipment are generally specified in the bid specifications, giving American firms an advantage over foreign competitors who must qualify their products.

#### Washington

Grantees for the EPA wastewater treatment projects in Washington made no direct purchases of foreign services or products. The major products used on these projects were mined, manufactured, or produced in the United States by domestic firms.

During fiscal year 1977, EPA approved 51 grants in Washington totaling approximately \$66.5 million for constructing pumping stations, treatment plants, outfall sewers, interceptors, collectors, and force mains as well as for rehabilitating sewers. We reviewed six of the larger projects which received grants totaling about \$18.6 million, or about 28 percent of the fiscal year 1977 Washington grant awards.

Our review showed that (1) no services or products were purchased directly from foreign firms, (2) many of the services and items purchased are not subject to foreign competition, and (3) although foreign firms may compete in providing plastic pipe, steel products, and mechanical equipment, no major foreign products were used.

The major contracted services on these projects entailed trench excavation and backfill, earthwork, demolition, surfacing roadways, electrical work, laying pipe, constructing buildings, and installing equipment. No foreign firm bid to perform these services. Consulting engineers estimated that labor costs would range from 40 to 50 percent of total project costs. Based on these estimates, as much as \$9.3 million could be used to pay labor costs.

The major products used included pipe, mechanical equipment, asphalt, crushed subsurfacing material, topsoil, sand, rock, gravel, and electrical equipment.

Consulting engineers could identify only one foreign product used on a project included in our review. On this \$1.6 million project, operating equipment costing \$12,872 was manufactured in Korea. The steel fabricating companies that furnish iron and steel products told us that they used only domestic steel. A local plastic pipe manufacturer told us that the shipping costs and import duties on plastic pipe make it difficult for foreign firms to compete with domestic firms.

#### Potential for foreign competition

Our analysis of the cost items for the Detroit wastewater construction project below was based on comments and estimates provided by the construction contractors and grantee officials. They believed that most items were not subject to foreign competition because:

- U.S.-source labor costs represent about 50 percent of the cost of a typical wastewater treatment construction contract.
- Large quantities of bulk material--concrete, gravel sand, and pre-cast concrete pipe--must be obtained near the construction site because it would be too costly to transport long distances.

--It is standard practice to deal with local subcontractors, suppliers, and equipment manufacturers, because it facilitates management control, communication, and performance.

--American equipment suppliers are usually specified in bid specifications, because design engineers are familiar with their product specifications, dimensions, and performance characteristics and are not always familiar with similar foreign-made products. This places foreign suppliers at a disadvantage and limits the potential for foreign purchase of equipment items.

	<u>Contract cost</u>	<u>Percent of total cost</u>
Items subject to foreign competition:		
Pumps	\$ 516,600	
Estimated value of iron and steel components contained in domestic products; e.g. reinforcing bars, sheet piling, bearing piles, plate steel, angle iron, stop log, sluice gate, fencing.	<u>556,257</u>	
	<u>a/\$1,072,857</u>	11.9
Items not subject to foreign competition:		
Residual value of products containing above components (e.g. other material, labor)	1,467,400	
Material purchased near construction site due to bulk and weight, (e.g. aggregates, cement, sand, concrete, pipe, timber)	2,720,943	
Service-related items (bonds, excavation, installation of temporary piling, waterproofing, fabrication labor, relocation of facilities demolition, clean-up, start-up)	2,176,400	
Items dominated by domestic firms because of lower cost, standard industry practice, and specification requirements (e.g. cast iron and vitreous pipe, plumbing, flow meters, valves, instrumentation, power system)	<u>1,597,400</u>	
	<u>7,962,143</u>	<u>88.1</u>
Total contract costs	<u>\$9,035,000</u>	<u>100.0</u>

a/ Only foreign purchase involved \$10,000 worth of steel from Canada for bearing piles.

An analysis of major items subject to foreign competition for six projects in Washington State included such products as plastic pipe, mechanical equipment (pumps, aerators, and clarifiers), ductile iron pipe, steel pipe, steel piling, and other miscellaneous steel products.

The potential for foreign competition for selected wastewater treatment construction projects is shown below.

	<u>Contract cost (note a)</u>	<u>Percent of cost</u>
Major products not subject to foreign competition:		
Sand and gravel	\$ 684,835	
Asphalt	950,185	
Wood	248,878	
Concrete pipe	2,284,621	
Concrete manhole casings	728,839	
Miscellaneous concrete and cement products	1,466,958	
Rock	37,898	
Turf	5,700	
	<u>\$6,407,914</u>	34.2
Major products subject to foreign competition but purchased domestically:		
Steel pipe	265,348	
Ductile iron pipe	472,362	
Steel tunnel liner	680,850	
Miscellaneous iron and steel products	206,599	
Paint	18,265	
Mechanical equipment (pumps, aerators, and clarifiers)	2,040,791	
Plastic pipe	3,632,153	
	<u>\$ 7,316,368</u>	39.1
Major products purchased from foreign sources:		
Operating equipment	<u>12,872</u>	0.1
Miscellaneous services and products purchased domestically	<u>4,995,287</u>	26.6
Total contract costs	<u>\$18,732,441</u>	<u>100.0</u>

a/Includes material, labor, equipment, fabrication, and overhead costs of incorporating the article, material, or supplies into the facility or work.

LOCAL PUBLIC WORKS PROGRAM

The Local Public Works program began October 26, 1976, with an initial funding of \$2 billion in the Public Works Employment Act of 1976 (Public Law 94-369). An additional \$4 billion was authorized and appropriated under the Public Works Employment Act of 1977 (Public Law 95-28). All grant money was obligated by September 30, 1977. The program, administered by Commerce's Economic Development Administration (EDA), funds the construction of public works and development facilities in areas experiencing high unemployment and economic recession.

We reviewed foreign-source procurement for selected projects in Ohio, Michigan, and Washington. The projects in Ohio and Michigan were valued at a total of \$40.4 million, with the program providing \$31 million, or 77 percent; those in Washington State were valued at \$11.5 million, with the program providing \$11.2 million.

Only one project in our Michigan sample used foreign material--a tubular steel spaceframe costing \$815,000 was purchased for use in Detroit as a pedestrian shelter. Three projects in Washington used some foreign iron and steel, amounting to about \$67,000. None of the Ohio projects examined used foreign material.

In addition to actual foreign purchases, we examined the potential for foreign purchases in selected projects. In Ohio, for the renovation of an auditorium, an estimated 1.4 percent of the total costs for steel and other materials may be subject to foreign competition; however, no foreign purchases were made for this project. In Washington, for the construction of a storage and maintenance building, 9.1 percent of the total cost could be subject to foreign competition; in fact, only 2 percent was used for foreign purchases.

A buy-national provision was not included in the original legislation but was added to the Act of 1977. This provision is very similar to the language of the Buy-American Act. (See app. I.)

Ohio and Michigan

Our review of selected federally funded public works projects in Ohio and Michigan disclosed that (1) grantees made no direct purchases of services and products from

foreign firms, (2) one contractor purchased foreign steel products costing about \$815,000 and (3) most items for a typical public works project are not subject to foreign competition.

From December 19, 1976 to May 17, 1978, EDA awarded 944 grants for public works projects totaling \$594.2 million. The grants ranged from \$4,000 to \$6,000,000 for a wide variety of construction projects sponsored by communities, school districts, and community organizations. We inquired into the extent of foreign purchases made by two of the largest city grantees--Cleveland and Detroit. Our inquiries concerned contracts for public works projects totaling \$40.4 million, with EDA grant funds covering 77 percent or \$31 million.

The contracts were for construction or renovation of various public buildings, facilities, roadways, and plazas and were all awarded to domestic construction firms. Consequently, any foreign products or materials used would have been purchased by the construction contractors and/or their suppliers and not directly by the grantees. According to grantee and contractor officials, construction contracts are not subject to foreign competition, primarily because of the need to use onsite construction labor, e.g., electricians, plumbers, and pipefitters. No foreign firms bid on the construction contracts.

Grantee and contractor officials were able to identify only one purchase of foreign material--an \$815,000 tubular steel spaceframe built in France to provide shelter from the weather over a large pedestrian plaza being constructed in downtown Detroit. The purchase was made before the imposition of the May 1977 restriction requiring EDA approval for the use of foreign materials. However, grantee officials believe this purchase probably would have qualified for EDA approval because of the frame's unique patented design and joining system.

#### Potential for foreign competition

Our analysis of the items for the renovation of an auditorium in Cleveland showed that few items were subject to foreign competition. The analysis was based on comments and estimates provided by the construction contractors. We classified 99 percent, or \$3.9 million of the project's \$4 million cost, as not being subject to foreign competition.

Generally, these costs involved (1) construction services obtained locally; e.g., stonework, carpentry, plumbing, and (2) products and materials dominated by domestic firms due to price or specification requirements; e.g., domestic brand-name products.

### Washington

The grantees for the Washington projects made no direct purchases of services or products from foreign firms. Although foreign iron and steel materials were purchased by subcontractors and suppliers for use on some of these projects, most products were mined, manufactured, or produced in the United States by domestic firms.

During fiscal year 1977, EDA approved 192 local Public Works projects in Washington totaling about \$119 million. These projects primarily involved constructing or renovating buildings, improving streets, and improving or expanding water systems. We reviewed six of these projects, whose grants totaled about \$11.2 million, or about 9 percent of the fiscal year 1977 Washington grant awards. Three of the six projects were subject to the Buy-American provision, since they were funded after May 13, 1977.

### Use of foreign services and products

The information we obtained showed that (1) grantees purchased no services directly from foreign firms, (2) some products purchased were not subject to foreign competition, and (3) the value of the foreign iron and steel products used totaled no more than 2 percent of each grant and generally involved materials not available from domestic steel manufacturers on the west coast.

The major services included excavation, backfill, laying pipe, electrical work, building construction, and equipment installation. Grantees told us that only domestic firms competed for these contracts and that, generally, no competition from foreign contractors and subcontractors existed.

Contractors told us that crushed rock, paving materials, concrete pipe, and similar heavy items were usually purchased near the construction site because of their bulk and weight and that high shipping costs precluded foreign competition for these items.



Many products, such as plastic pipe, mechanical equipment, ductile iron pipe, steel pipe, miscellaneous steel, and asbestos, are subject to foreign competition. Contractors told us, however, that aside from certain steel and iron products, all products were generally purchased from domestic sources. We did not verify the sources for nonsteel products used on these projects but did determine whether iron or steel components for major products came from a foreign or domestic source.

Five of the six construction projects used iron or steel products. Two of them used only domestic iron and steel. Three, all building construction projects, used relatively small amounts of foreign iron and steel, as shown below. one was subject to the Buy-American provision.

<u>Project</u>	<u>Amount of grant</u>	<u>Iron and steel materials in product</u>		
		<u>Estimated value</u>	<u>Purchased from foreign source</u>	
			<u>Estimated value</u>	<u>Percent of grant</u>
1	\$2,768,618	\$ 90,184	\$27,155	1.0
2	3,850,000	71,852	9,251	0.2
3 (note a)	1,532,000	118,181	30,117	2.0
Total	<u>\$8,150,608</u>	<u>\$280,217</u>	<u>\$66,523</u>	

a/Project subject to Buy-American provision.

Contractors and steel fabricators told us that domestic steel plants on the west coast did not produce certain steel materials needed on some projects, so they had to buy from foreign sources. For example, prestress strand, used in the manufacture of precast concrete structures, generally was not available domestically on the west coast. An official of one precast concrete company in Washington said that the closest domestic manufacturer of prestress strand was in Colorado, but that the company would not even accept orders from the west coast, so purchases were made from foreign sources. About \$17,000 of foreign prestress strand was used on the three projects.

An Arizona supplier for a warehouse project used about \$25,000 worth of imported steel for decking. The supplier told us this grade of steel was always imported on the west coast and that domestic steel mills servicing west coast suppliers did not provide this grade.

In some cases, the contractors purchased steel from suppliers that maintained a mixed inventory of foreign and domestic steel. Since the suppliers did not identify the steel by manufacturer after it was placed in inventory, the contractors did not know the source of specific steel purchases.

We contacted two suppliers who could not identify the source of the steel used on two projects. These two suppliers estimated that their general inventories contained 15 percent and 10 percent, respectively, of foreign steel. Based on these percentages, they estimated that about \$4,000 of the steel used on the two projects may have come from foreign sources. Neither project was subject to the Buy-American provision.

We reviewed all EDA waivers of the Buy-American provision for fiscal year 1977 projects in region VII (Washington, Oregon, California, Idaho, Nevada, Arizona, Alaska, Hawaii, Guam, and Pacific Trust Territories). Aside from the Pacific Trust Territories, where blanket waivers were granted for local public works projects because of the high cost of U.S. products and other considerations, EDA granted 15 waivers on projects in Washington, Oregon, California, and Nevada. Five of these waivers were for iron or steel products and 10 were for nonsteel items, such as special bricks, glass, and asbestos.

A Seattle EDA official stated that grantees are required to request waivers from EDA for foreign materials that violate the "substantially all" domestic requirement of the Buy-American provision but that EDA provides no official guidance to grantees to help determine if the "substantially all" domestic provision has been violated. Seattle EDA officials said they have adopted 85 percent of an item's acquisition cost as an approximate measure of the "substantially all" domestic provision.

Seattle officials said EDA has relied on grantees to ensure that the Buy-American and other provisions of the local public works legislation are followed. Until recently, EDA had not tested compliance with these requirements but is undertaking a study to determine whether grantees are properly enforcing the provisions of the legislation.

An analysis of foreign-source services and products for the construction of a storage and maintenance building in Washington follows.

Grantee - Spokane School District #21

	<u>Contract cost</u> <u>(note a)</u>	<u>Percent</u> <u>of cost</u>
Products purchased domestically:		
Paving	\$138,000	
Mechanical (note b)	392,000	
Electrical (note b)	81,800	
Gypsum wallboard partitions	11,008	
Painting	4,353	
Sprinkling system (note b)	122,500	
Miscellaneous	10,000	
	<u>\$759,661</u>	58.6
Miscellaneous services purchased domestically:		
Excavation	\$ 18,700	
Backfill	25,600	
Cleanup	5,000	
	<u>\$ 49,300</u>	3.8
Products containing iron and steel components subject to foreign competition:		
Concrete--footing, foundations, slab	\$209,058	
Building	270,000	
Metal doors and frame	2,260	
Door hardware	2,305	
Overhead doors	4,242	
	<u>\$487,865</u>	37.6
Total contract cost	<u>\$1,296,826</u>	<u>100.0</u>

a/Represents an estimate of the cost, including material, labor, equipment, and fabrication excluding overhead and profit of 6.8 percent (\$89,335).

b/According to the contractor, an insignificant amount of iron or steel may be included in these items, but the value or source would be difficult or impossible to identify.

Below is an estimate of the value of iron and steel components in products subject to foreign competition and purchased from foreign sources.

<u>Product</u>		<u>Iron or steel components</u>		
<u>Description</u>	<u>Cost</u>	<u>Description</u>	<u>Estimated value</u>	<u>Purchased from foreign source</u>
Concrete	\$209,058	Prestress strand	\$ 1,490	\$ 1,490
		Reinforcing bar	610	
		Wire mesh	2,041	
Building	270,000	Metal joists	64,000	25,000
		Steel decking	25,000	3,000
		Sheet metal and galvanized steel	3,800	
		Miscellaneous steel	16,300	627
Metal doors and frames	2,260	Steel sheet and framing	1,390	
Door hardware	2,305	Miscellaneous steel	1,450	
Overhead doors	<u>4,242</u>	Sheet steel	<u>2,100</u>	<u>          </u>
Total	<u>\$487,865</u>		<u>\$118,181</u>	<u>\$30,117</u>

#### RURAL ELECTRIFICATION LOANS AND LOAN GUARANTEES

We obtained information regarding foreign-source procurement by rural electric cooperatives that received direct and guaranteed loans administered by the Department of Agriculture's Rural Electrification Administration (REA). This assistance is subject to REA's buy-national provisions, which give domestic suppliers a 6-percent price preference over foreign firms. However, REA does not review each procurement contract for compliance with these provisions. Therefore, while borrowers must certify that all materials and supplies used in the performance of contracts are in compliance with REA's buy-national restrictions, the requirement is self-policing.

The buy-national restrictions apply to participation projects (generation plant construction partially financed by REA) as well as generation and transmission projects wholly funded through REA loans and guarantees. However,

rural electric cooperatives normally provide only 5 to 35 percent of the funding for participation projects, with municipal or public utilities providing the balance. Buy-national provisions applicable to these projects state either that (1) a percent of the total cost of the materials, based upon the percent of REA participation, must be of domestic origin or (2) the total cost of the project is subject to REA's buy-national provisions and REA funding will provide for any extra cost the public utility may incur in adhering to the provision.

Funds for transmission and generation projects are obligated, based on projected total costs of the projects, but funds are advanced to borrowers only as materials and services are provided. Since advanced funds reflect actual purchases made, we related foreign purchases to these figures.

Advances for obligations of funds from July 1, 1974, to March 31, 1978, are shown below.

<u>Type of project</u>	<u>Funds obligated</u> (000 omitted)	<u>Funds approved for advance as of Aug.-Sept. 1978</u>	<u>Funds approved for advance as percent of total funds obligated</u>
Generation and bulk transmission (note a)	\$3,886,584	\$1,751,645	18.89
Participation	4,821,181	1,931,263	20.82
Internal trans- mission (note b)	<u>567,689</u>	<u>C313,345</u>	<u>3.38</u>
Total	<u>\$9,275,454</u>	<u>\$3,996,253</u>	<u>43.09</u>

a/Involves transmission lines from generation plant to transmission substations.

b/Includes transmission lines from transmission substations to distribution substations or for systems support.

c/Estimated.

Thus 43.09 percent of the funds obligated can be attributed to actual purchases of goods and services.

### Foreign procurement in generation and internal transmission projects

From July 1, 1974 through September 1978, REA advanced \$1.75 billion to fully finance the construction of generation plants and associated transmission lines (bulk transmission) and approximately \$313 million for the construction of internal transmission lines. As shown below, only seven projects involved awards to foreign firms.

#### Generation Project

<u>Location:</u>	<u>Foreign supplier, product</u>	<u>Amount of foreign contract</u>	<u>Basis for foreign procurement</u>	<u>Funds approved for advance to date</u>	<u>Percent of foreign procurement</u>
Indiana	Amertap (Germany) Condenser cleaner	\$ 653,749	Sole source	\$ 115,074,000	0.57
Louisiana	Brown Boveri (Switzerland) Generator breaker	921,734	Sole source	491,000,000	.11
Wisconsin	American M.A.N. (Germany) Condenser cleaner	53,995	Sole source	116,960,000	.046
Kentucky	CBP Engineering Corp. (England) Ash transport pipe	217,960	Sole source	19,564,000	1.11
Other		-		1,009,047	-
Total		<u>\$1,847,438</u>		<u>\$1,751,645,000</u>	.11

#### Internal Transmission Project

Alaska	Industrie Pirelli (Italy) Submarine cables and accessories	\$3,070,868	Sole source	\$ 15,686,137	19.58
Colorado	Sediver, Inc. (France) Glass suspension insulators	221,542	Non-availability	16,093,394	1.38
Washington	Sumitomo Shoji (Japan) Submarine cable and accessories	514,626	Sole source	645,000	79.79
Other		-		280,919,869	-
Total		<u>\$3,807,036</u>		<u>\$313,345,000</u>	1.22

Foreign procurement totaled \$1.8 million or 0.11 percent of the \$1.75 billion advanced for power generation plants, and \$3.8 million or 1.22 percent of the \$313 million advanced for the construction of internal transmission lines. Six of the foreign awards were made on a sole-source basis because of the required contract specifications; the seventh award involved a shortage of domestically produced porcelain suspension insulators.

#### Foreign procurement in participation projects

Participation project funding amounted to \$1.93 billion or 48 percent of approximately \$4 billion approved for advance from July 1974 through September 1978.

REA officials identified three contracts awarded to foreign suppliers.

<u>Project location</u>	<u>Percent of total participation</u>	<u>Foreign supplier, product</u>	<u>Amount of foreign contract</u>	<u>Basis for foreign procurement</u>	<u>Funds approved for advance</u>
Colorado (two coope- ratives)	42 24	Brown Boveri (Switzerland) Generator breakers	\$1,173,990	Sole source	\$ 191,262,000 169,909,000
North Dakota (two coope- ratives)	42 24	Brown Boveri (Switzerland) Generator breakers	1,199,575	Sole source	192,789,000 107,764,000
		SAE (Italy) Transmission towers	5,768,644	Price	
Other					<u>1,263,539,000</u>
Total			<u>\$8,142,209</u>		<u>\$1,931,263,000</u>

The \$8.1 million in foreign purchases equals 0.42 percent of the \$1.9 billion REA funds advanced. For the foreign procurement award based on price, the winning bid was 8.20 percent lower than that of the next lowest bidder, a U.S. firm.

#### Review of Louisiana generation project

In reviewing the construction contracts for the power generation plant in Louisiana, we determined that there was potential for foreign competition for about \$325.7 million or 94 percent of the materials and equipment used, including turbine and steam generators, precipitators, condenser tubes, and power transformers. Only two items, totaling \$4.25 million, were identified as not being subject to foreign competition--fiberglass circulating waterpipes and computers. The remaining \$15.7 million involved service contracts and, therefore, was not subject to foreign competition. Only one contract was awarded to a foreign firm on a sole-source basis.

Although most materials and equipment used in the construction of rural generation plants are subject to foreign competition, there seemed to be few foreign purchases made. REA officials and power supply cooperative managers cited a number of reasons for the preference of domestic materials in REA-funded projects, including

- REA's buy-national requirement;
- maintenance and repairs are more readily available;
- members of cooperatives are "nationally oriented" and prefer domestic products as long as they are available and competitive; and
- domestic products are normally price competitive with foreign materials.

There was no consensus regarding the impact of REA's buy-national requirements on procurement practices. Some officials believed that rural cooperatives would prefer domestic items regardless of any official policy, while others were of the opinion that REA's policy was instrumental in limiting foreign procurement.



FEDERAL ASSISTANCE (OBLIGATIONS) TO STATE AND LOCAL GOVERNMENTS  
AND OTHER ORGANIZATIONS FOR SELECTED PROGRAMS - FY 1977

	<u>Grants</u> (000 omitted)	<u>Other</u>
Federal Aviation Administration:		
Airport development aid program	\$ 506,300	
Federal Highway Administration:		
Federal aid highway program	6,965,006	
Urban Mass Transportation Administration:		
Capital improvements program	1,250,000	
Formula grant program	611,002	
Federal Railroad Administration:		
Guarantee of obligations		\$ 12,000
Purchase of redeemable preference shares		58,000
Amtrak grants	<sup>a</sup> 600,700	
U.S. Railway Association:		
Purchase of Conrail debentures		<sup>b</sup> 381,400
Purchase of Conrail preferred stock		<sup>b</sup> 31,300
Department of Commerce:		
Grants for public works	<sup>c</sup> 5,972,460	
Environmental Protection Agency:		
Wastewater treatment works	6,669,100	
Department of Agriculture:		
Rural Electrification insured/guaranteed loans		<u>4,835,000</u>
TOTAL	<u>\$22,574,568</u>	<u>\$5,317,700</u>

Source: Unless otherwise noted, information was obtained from the "1978 Catalog of Federal Domestic Assistance," Executive Office of the President, Office of Management and Budget.

a/Obtained from Federal Railroad Administration; figure represents Federal appropriations for Amtrak.

b/Obtained from U.S. Railway Association; represents actual purchases.

c/Obtained from Department of Commerce.

GAO REPORTS ISSUED TO THE CONGRESSIONAL STEEL CAUCUS,  
HOUSE OF REPRESENTATIVES, DURING THIS REVIEW

Department of Commerce procedures under the Defense Production Act (sec. 101(c)) as it pertains to priorities for steel to meet future energy requirements, Apr. 1978 (ID-78-39)

Federal legislation and program information on Federal funds provided to State and local governments and other organizations for procurement activities, May 1978 (ID-78-40)

Defense foreign-source awards to prime contractors for selected products and procurement centers, May 1978 (ID-78-42)

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